

**RESPONSE OF MORRIS & McDANIEL, INC. TO REQUEST FOR SUPPLEMENTAL
INFORMATION CONTAINED IN EMAIL OF ERIN DVINCENT BEARING TIME STAMP
OF SEPTEMBER 28, 2020 @ 5:25 PM CENTRAL TIME**

(For purposes of clarity, the text of each of the individual requests is quoted in bold and our response follows.)

Per the Standard Instructions, Item 11.1 Evaluation Factors:

1. Your Offer provided no meaningful description of the development, methodology, or validity of the non-cognitive items. Please clarify.

Notwithstanding the information contained in our Proposal submission which we describe below, we appreciate the opportunity to provide additional evidence concerning the development methodology and validity of our Non-Cognitive component. Therefore, we attached a copy of the CPS Development and Validation Report (2012). (Please note that in the attached report the Non-Cognitive component is referred to as the “Candidate Profile Summary (CPS)”). Results of two previously conducted transportability studies supporting the use of the Non-Cognitive and other proposed components for the Austin Fire Department’s Fire Cadet position are also attached. Further, as stated in our response to 3.1.3.10 (Proposal, p. 25), the local criterion validity studies currently in progress for AFD’s 2017 and 2019 hiring cycles will present results for the composite score that includes the Non-Cognitive component.

Information concerning the validity and fairness of the Non-Cognitive component when used with the Cognitive and Structured Oral components as a composite score, as proposed, may be found in the results presented for three referenced clients, Midwestern (p. 87), New Haven (p. 91), and Stamford (p. 95). A detailed validation report from the Midwestern reference can be found in Appendix G.

In reviewing our proposal documents, we found that Non-Cognitive sample items were inadvertently omitted from Appendix J (Sample Entry-level Examination Study Guide), which contains sample items for the Cognitive, and Structured Oral Interview

components. For convenience of review, below we provide the following description and three sample items.

[Begin quoted material]

Non-Ability/Work Behavior Questions This part of the test, like many other tests you have taken, is in multiple-choice format. However, this test is different in that it asks questions about yourself and your life experiences, such as experiences in school, your interests and attitudes.

Sample Question 1. In high school, the subject I enjoyed studying the most was:

- a. math***
- b. history***
- c. physical education***
- d. art***
- e. English***

Sample Question 2. If you saw a friend was taking something of yours without your permission, what are you most likely to do?

- a. Ask your friend why they took it without your permission***
- b. Make them return what they took***
- c. Tell your other friends or family what your friend did***
- d. Report what they did to the police***
- e. End your friendship***
- f. Say nothing to them and take something of equal value that belongs to them without their permission***
- g. Take no action***

Sample Question 3. In the past year, how many times have you pushed, shoved, or hit a co-worker?

- a. Six or more times***

- b. Four or five times**
- c. Two or three times**
- d. Once**
- e. Never**
- f. I have not been employed in the past year.**

You should first read the question and then all of the possible responses. Afterwards, you should pick the one response which you think fits you best. The best approach is to answer every question as honestly as you can and pick the response which describes you or what you think is best.

It is essential that you understand that some of your responses can be verified and if you don't answer honestly, it may be checked and your application can be rejected. This part of the test is designed to explore issues relevant to your potential employment.

The results of this questionnaire are only one of several factors that will be considered in your application for employment. These results are confidential and will only be reported to those in the hiring process on a need to know basis. Your job application can be rejected if you answer any questions untruthfully or if you fake an answer or skip a question.

Please answer all questions. For each question, you must decide which one of the choices is the best answer for you personally. If no one answer seems to be perfect, choose the one answer that is slightly better than the others.

[End quoted material]

2. Details for the process of transporting the validity of the assessments not provided. Please provide.

Morris & McDaniel routinely conducts Transportability Studies when our assessments are used for the first time by an agency. Appendix I (Sample Transportability Study) of our Proposal describes the process we use to transport validity of assessments to a new jurisdiction. Our understanding of the Uniform Guidelines (Section 15E - *Evidence of validity from other studies*) is that a transportability study is required when an assessments' validity evidence is supported by a study or studies conducted for one user (i.e., agency), but those assessments will be administered for a different agency.

In 2013, when Morris & McDaniel's assessments were first used by the Austin Fire Department (AFD) for entry-level Fire Cadet, we conducted a transportability study. We attached a copy of that 2013 study.

After the transportability of assessments is established, as we did for AFD in 2013, repeated additional transportability studies are not required. Further, since 2013, we have conducted local criterion-related validation studies which established strong evidence for the local validity (i.e., directly relationship to AFD's Fire Cadet position) of our proposed assessments. Therefore, we did not propose the conduct of another transportability study. However, Morris & McDaniel is willing to consider collecting additional data and if the decision makers believe another transportability study is needed, we will use the same transportability methods used in 2013 and 2017.

Lastly, we also note that a second Transportability Study covering all proposed assessments was conducted in 2017. While a follow-up Transportability Study is not a requirement under the Uniform Guidelines, Morris & McDaniel conducted it proactively to ensure the previously describe validity results remained transportable to the AFD. The results of that study confirmed the transportability of validity evidence for all proposed assessments. A copy of the 2017 Transportability Study is attached.

As stated above if the jurisdiction believes another transportability study is needed we will use the same methods used in the 2013 and 2017 Transportability Studies which are attached.

3. The source of validity evidence that will be transported is not stated. Please provide.

As explained in our response to #2, Morris & McDaniel did not propose a Transportability Study because we conducted a Transportability Study when our assessments were first used for Fire Cadet by AFD in 2013. Having previously established the transportability of our assessments and since having collected criterion-related validity which supports the continued use of our assessments for AFD Fire Cadets since 2013, additional evidence of transportability is not applicable in our unique circumstance. However, also as stated in our response to #2, a follow-up Transportability Study was conducted in 2017 and confirmed the results of the 2013 study, specifically that the validity evidence for all proposed assessments is transportable from the Midwestern results to AFD. Copies of both Transportability Studies are attached. If the decision makers for Austin determine that they would like to see another transportability study we would use the validity established in the other jurisdictions reported in the 2013 and 2017 studies.

4. Paper page 48 statement that “a search for alternative selection procedures that do not have adverse impact is not warranted” is inconsistent with the Uniform Guidelines requirement to search for tests of equal or higher validity and lower adverse impact. Please clarify.

Morris & McDaniel welcomes the opportunity to clarify our position concerning alternative selection procedures. Morris & McDaniel consistently seeks alternative selection procedures that would maintain validity while reducing significant adverse impact. As stated in our Proposal (Section 3.1.5.5, p. 40), we explored alternative selection procedures on numerous occasions in collaboration with the Austin Fire Department, the Department of Justice, AFD’s collective bargaining association, and

the City's HIPOC committee. As a result of this collaboration, various alternative selection procedures for AFD were explored (e.g., modification to Cognitive assessment content, use of Non-Cognitive component, inclusion of a basic reading ability component).

We acknowledge that in Appendix G, page 48 of the 2015 Austin Fire Department Criterion – Related Validation Study stated, “a search for alternative selection procedures that do not have adverse impact is not warranted”. While this statement was correct in the context of that report’s conclusions (i.e., a search is not required when no significant adverse impact is found (Uniform Guidelines, Section 3B. *Consideration of suitable alternative selection procedures*), we further recognize that this statement could be interpreted as a universal disregard for the need to explore alternative procedures. If this impression was created, we apologize for the confusion and again point to our strong record of regularly making all possible efforts to both minimize adverse impact and maximize validity.



**Submittal
Offer and Certifications**

Solicitation No.
RFP 8300 EAD3012

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OFFER CERTIFICATION

Instructions. Offerors shall complete and sign the Offer Certification section of this section as indicated. Offerors shall not complete any portions of the Acceptance section below. Submittals with incomplete and/or unsigned Offer Certification are not considered to be Offers and will be rejected as nonresponsive.

Company Name: **Morris & McDaniel, Inc.**

Company Address: **117 South Saint Asaph Street**

City, State, Zip: **Alexandria, Virginia 22314**

Company's Austin Finance Online Vendor Registration No. **VS0000004616**

Company's Officer or Authorized Representative: **David M. Morris, Ph.D., J.D.**

Title of Officer or Authorized Representative: **President**

Email: **contact@morrisandmcdaniel.com**

Offeror's Phone: **703-836-3600**

Offeror's Signature: *David M. Morris Ph.D., J.D.*

Date: **9-11-2020**

OFFER: The above signed, by his/her signature, represents that he/she is submitting a binding offer and is authorized to bind the respondent to fully comply with the solicitation document contained herein. The Offeror, by submitting and signing below, acknowledges that he/she has received and read the entire document packet including all revisions, and addenda and agrees to be bound by the terms therein.

ACCEPTANCE BY THE CITY

For City Staff only. The City will complete and sign this section only if the City accepts the Offer.

Contract Number: MA 8300 NA210000014 - effective start date of contract is January 1, 2021

Printed Name of City's Authorized Procurement Staff: Erin D'Vincent

Title of City's Authorized Procurement Staff: Procurement Supervisor

Signature: **Erin D'Vincent**
Digitally signed by Erin D'Vincent
DN: cn=Erin D'Vincent, o=City of Austin, ou=Purchasing
Office, email=erin.dvincent@austintexas.gov, c=US
Date: 2020.11.12 10:32:53 -06'00'

Date: November 12, 2020

Email: erin.dvincent@austintexas.gov

Phone: 512-974-3070

ACCEPTANCE: The Offer is hereby accepted. Contractor is now bound to sell the materials or services specified in the Contract.

NON-DISCRIMINATION AND NON-RETALIATION CERTIFICATION

Instruction. Offerors shall read and acknowledge this certification by checking the box below. Offerors that do not check the box below indicating their compliance with this certification shall be determined nonresponsive.



(Check)

OFFEROR HEREBY CERTIFIES

Offeror has read the following and will comply with Austin City Code, Sec. 5-4-2.

1. Not to engage in any discriminatory employment practice defined in this chapter;
2. To take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without discrimination being practiced against them as defined in this chapter, including affirmative action relative to employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other forms of compensation, and selection for training or any other terms, conditions or privileges of employment;
3. To post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Equal Employment/Fair Housing Office setting forth the provisions of this chapter.
4. To state in all solicitations or advertisements for employees placed by or on behalf of the Contractor, that all qualified applicants will receive consideration for employment without regard to race, creed, color, religion, national origin, sexual orientation, gender identity, disability, sex or age.
5. To obtain a written statement from any labor union or labor organization furnishing labor or service to Contractors in which said union or organization has agreed not to engage in any discriminatory employment practices as defined in this chapter and to take affirmative action to implement policies and provisions of this chapter.
6. To cooperate fully with City and the Equal Employment/Fair Housing Office in connection with any investigation or conciliation effort of the Equal Employment/Fair Housing Office to ensure that the purpose of the provisions against discriminatory employment practices are being carried out.
7. To require of all subcontractors having 15 or more employees who hold any subcontract providing for the expenditure of \$2,000 or more in connection with any contract with the City subject to the terms of this chapter that they do not engage in any discriminatory employment practice as defined in this chapter.

For the purposes of this Offer and any resulting Contract, Contractor adopts the provisions of the City's Minimum Non-Discrimination and Non-Retaliation Policy set forth below.

MINIMUM NON-DISCRIMINATION AND NON-RETALIATION POLICY

1. As an Equal Employment Opportunity (EEO) employer, the Contractor will conduct its personnel activities in accordance with established federal, state and local EEO laws and regulations. The Contractor will not discriminate against any applicant or employee based on race, creed, color, national origin, sex, age, religion, veteran status, gender identity, disability, or sexual orientation. This policy covers all aspects of employment, including hiring, placement, upgrading, transfer, demotion, recruitment, recruitment advertising, selection for training and apprenticeship, rates of pay or other forms of compensation, and layoff or termination.
2. The Contractor agrees to prohibit retaliation, discharge or otherwise discrimination against any employee or applicant for employment who has inquired about, discussed or disclosed their compensation.
3. Further, employees who experience discrimination, sexual harassment, or another form of harassment should immediately report it to their supervisor. If this is not a suitable avenue for addressing their complaint, employees are advised to contact another member of management or their human resources representative. No employee shall be discriminated against, harassed, intimidated, nor suffer any reprisal as a result of reporting a violation of this policy. Furthermore, any employee, supervisor, or manager who becomes aware of any such discrimination or harassment should immediately report it to executive management or the human resources office to ensure that such conduct does not continue.
4. Contractor agrees that to the extent of any inconsistency, omission, or conflict with its current non-discrimination and nonretaliation employment policy, the Contractor has expressly adopted the provisions of the City's Minimum Non-Discrimination Policy contained in Section 5-4-2 of the City Code and set forth above, as the Contractor's Non-Discrimination Policy or as an amendment to such Policy and such provisions are intended to not only supplement the Contractor's policy, but will also supersede the Contractor's policy to the extent of any conflict.
5. UPON CONTRACT AWARD, THE CONTRACTOR SHALL PROVIDE THE CITY A COPY OF THE CONTRACTOR'S NONDISCRIMINATION AND NON-RETALIATION POLICIES ON COMPANY LETTERHEAD, WHICH CONFORMS IN FORM, SCOPE, AND CONTENT TO THE CITY'S MINIMUM NON-DISCRIMINATION AND NON-RETALIATION POLICIES, AS SET FORTH HEREIN, OR THIS NON-DISCRIMINATION AND NON-RETALIATION POLICY, WHICH HAS BEEN ADOPTED BY THE CONTRACTOR FOR ALL PURPOSES WILL BE CONSIDERED THE CONTRACTOR'S NON-DISCRIMINATION AND NON-RETALIATION POLICY WITHOUT THE REQUIREMENT OF A SEPARATE SUBMITTAL.
6. Contractor agrees that non-compliance with Chapter 5-4 and the City's Non-Retaliation Policy may result in sanctions, including termination of the contract and suspension or debarment from participation in future City contracts until deemed compliant with the requirements of Chapter 5-4 and the Non-Retaliation Policy.
7. The Contractor agrees that this Non-Discrimination and Non-Retaliation Certificate of the Contractor's separate conforming policy, which the Contractor has executed and filed with the City, will remain in force and effect for one year from the date of filing. The Contractor further agrees that, in consideration of the receipt of continued Contract payment, the Contractor's Non-Discrimination and Non-Retaliation Policy will automatically renew from year-to-year for the term of the underlying Contract.

SUSPENSION AND DEBARMENT CERTIFICATION

Instruction. Offerors shall read and acknowledge this certification by checking the box below. Offerors that do not check the box below indicating their compliance with this certification shall be determined nonresponsive.



(Check)

OFFEROR HEREBY CERTIFIES

Offeror has **NOT** been debarred from contracting with the City of Austin, any other local governments or states, or the US federal government.

Suspended or Debarred Offerors. The City finds that offerors, including any subcontractors that may be included in the Offer, that are suspended or debarred from contracting with the US federal government, any state or local government, as of the submission date of their offer, are not sufficiently responsible to contract with the City. The City may reject and set aside any offer, or terminate for cause any contract resulting from an offer, in which the offeror falsely certified they were not suspended or debarred when in fact they were.

NON-COLLUSION AND NON-CONFLICT OF INTEREST CERTIFICATION

Instruction. Offerors shall read and acknowledge this certification by checking the box below. Offerors that do not check the box below indicating their compliance with this certification shall be determined nonresponsive.



(Check)

OFFEROR HEREBY CERTIFIES

Offeror has **NOT** engaged in collusion and is not aware of any conflicts of interests as described below.

Offeror. The term "Offeror", as used in this document, includes the individual or business entity submitting the Offer. For the purpose of this Affidavit, an Offeror includes the directors, officers, partners, managers, members, principals, owners, agents, representatives, employees, other parties in interest of the Offeror, and any person or any entity acting for or on behalf of the Offeror, including a subcontractor in connection with this Offer.

Anti-Collusion Statement. Offeror has not in any way directly or indirectly:

- a. colluded, conspired, or agreed with any other person, firm, corporation, Offeror or potential Offeror to the amount of this Offer or the terms or conditions of this Offer.
- b. paid or agreed to pay any other person, firm, corporation Offeror or potential Offeror any money or anything of value in return for assistance in procuring or attempting to procure a contract or in return for establishing the prices in the attached Offer or the Offer of any other Offeror.

Preparation of Solicitation and Contract Documents. Offeror has not received any compensation or a promise of compensation for participating in the preparation or development of the underlying Solicitation or Contract documents. In addition, the Offeror has not otherwise participated in the preparation or development of the underlying Solicitation or Contract documents, except to the extent of any comments or questions and responses in the solicitation process, which are available to all Offerors, so as to have an unfair advantage over other Offerors, provided that the Offeror may have provided relevant product or process information to a consultant in the normal course of its business.

Participation in Decision Making Process. Offeror has not participated in the evaluation of Offers or other decision making process for this Solicitation, and, if Offeror is awarded a Contract no individual, agent, representative, consultant, subcontractor, or sub-consultant associated with Offeror, who may have been involved in the evaluation or other decision making process for this Solicitation, will have any direct or indirect financial interest in the Contract, provided that the Offeror may have provided relevant product or process information to a consultant in the normal course of its business.

Present Knowledge. Offeror is not presently aware of any potential or actual conflicts of interest regarding this Solicitation, which either enabled Offeror to obtain an advantage over other Offerors or would prevent Offeror from advancing the best interests of the City in the course of the performance of the Contract.

City Code. As provided in Sections 2-7-61 through 2-7-65 of the City Code, no individual with a substantial interest in Offeror is a City official or employee or is related to any City official or employee within the first or second degree of consanguinity or affinity.

Chapter 176 Conflict of Interest Disclosure. In accordance with Chapter 176 of the Texas Local Government Code, the Offeror:

- a. does not have an employment or other business relationship with any local government officer of the City or a family member of that officer that results in the officer or family member receiving taxable income; Section 0810, Non-Collusion, 1 Revised 12/22/15 Non-Conflict of Interest, and Anti-Lobbying Certification;
- b. has not given a local government officer of the City one or more gifts, other than gifts of food, lodging, transportation, or entertainment accepted as a guest, that have an aggregate value of more than \$100 in the twelve month period preceding the date the officer becomes aware of the execution of the Contract or that City is considering doing business with the Offeror; and
- c. does not have a family relationship with a local government officer of the City in the third degree of consanguinity or the second degree of affinity.

ANTI-LOBBYING CERTIFICATION

Instruction. Offerors shall read and acknowledge this certification by checking the box below. Offerors that do not check the box below indicating their compliance with this certification shall be determined nonresponsive.



(Check)

OFFEROR HEREBY CERTIFIES

Offeror has and will continue to comply with the City's Anti-Lobbying Ordinance, Chapter 2-7, Article 6.

Applicability. This Solicitation is subject to City Code, Ch. 2-7, Article 6, Anti-Lobbying and Procurement.

No Lobbying Period. The No-Lobbying Period begins on the date this Solicitation was initially published and continues through the earlier of (i) 60-days following Council authorization of any contracts resulting from this Solicitation, (ii) the date the last resulting contract is signed, (iii) the date this Solicitation is cancelled.

Prohibited Communications. During the No Lobbying Period, Respondents to this Solicitation or their Agents, shall not make prohibited communications to City officials or City employees.

Ordinance. https://www.austintexas.gov/financeonline/afo_content.cfm?s=15&p=145

Rules. https://www.austintexas.gov/financeonline/afo_content.cfm?s=16&p=77

NONRESIDENT BIDDER AND MANUFACTURING CERTIFICATION

Instruction. Offerors shall read and checking the applicable boxes in response to both certifications below.

☒ **YES** ☐ **NO**
(Check One)

OFFEROR HEREBY CERTIFIES

Offeror **IS (YES)** or **IS NOT (NO)** a Nonresident Bidder in accordance with Texas Government Code Ch. 2252.002.

If "Yes" is checked, provide the name of the state where
Nonresident Bidder's Principle Place of Business is located.

Select State

(State)

☐ **YES** ☒ **NO**
(Check One)

OFFEROR HEREBY CERTIFIES

Offer **INCLUDES (YES)** or **DOES NOT INCLUDE (NO)** Equipment, Supplies and/or Materials in accordance with Texas Government Code Ch. 2252.002

If "YES" is checked, provide the name of the State where majority
of the Equipment, Supplies and/or Materials were manufactured

Select State

(State or Country if outside the United States)

Reciprocal Preference. In accordance with Texas Government Code Ch. 2252.002 (see below), the City must apply a reciprocal preference to a Nonresident Bidder's offer, consistent with the applicable preference granted by the state of the Nonresident Bidder's principal place of business. The City will also apply a reciprocal preference to a Resident Bidder or Nonresident Bidder's offer, consistent with the applicable preference granted by the state where the majority of the equipment, supplies and/or materials were manufactured.

Resident bidder. An Offeror whose principal place of business is in Texas, including a contractor whose ultimate parent company or majority owner has its principal place of business in Texas.

Nonresident Bidder. An Offeror that is not a Resident Bidder.

Statute: <https://statutes.capitol.texas.gov/Docs/GV/htm/GV.2252.htm>

LOCAL PRESENCE CERTIFICATION – OPTIONAL

Instruction. Offerors wishing to claim Local Presence shall read and acknowledge this certification by checking the applicable box and providing the physical address below.

OFFEROR HEREBY CERTIFIES

Offeror's HEADQUARTERS or a BRANCH OFFICE is within the Austin Corporate City Limits.

☐**HEADQUARTERS****Not Applicable**☐**BRANCH OFFICE**

(Physical Address of Offeror's Headquarters or Branch Office)

(Check One)

Benefit to the City. It is the City's policy that contracts with Offerors with Local Presence provides additional economic development opportunities including employment of City residents or increasing City tax revenues.

Local Presence. Offerors may claim Local Presence if at least one (1) of the following are located within the Austin Corporate City Limits, employing residents of Austin.

1. Headquarters; or
2. Branch office.

Austin Corporate City Limits. The City of Austin's Full Purpose Jurisdiction, not including the City's Extraterritorial Jurisdiction.

Headquarters. The Offer's administrative center where most of the company's important functions and full responsibility for managing and coordinating the business activities of the firm are located.

Branch Office. An office other than the Offeror's headquarters, that has been in place for at least five (5) years, where those persons that will be responsible for the provision of the goods and services described in this solicitation are located.

Subcontractors. Offerors may also claim Local Presence for any subcontractors included in their offer.

The same as Offerors, Subcontractors have Local Presence if either their Headquarters or Branch Office is located within the Austin Corporate City Limits. Local Presence for Subcontractors can only be claimed within the attached Compliance Plan OR Subcontractor Plan, and subject to further requirements including good faith efforts to subcontract with City certified Minority and Women-owned Business Enterprises. The City will not grant any Local Presence for proposed subcontractors if the Subcontract Plan is incomplete or is found to be inaccurate.

SUBCONTRACTING UTILIZATION FORM

In accordance with the City of Austin's Minority and Women-Owned Business Enterprises (M/WBE) Procurement Program (Program), Chapters 2-9A/B/C/D of the City Code and M/WBE Program Rules, this Solicitation was reviewed by the Small and Minority Business Resources Department (SMBR) to determine if M/WBE Subcontractor/Sub-Consultant ("Subcontractor") Goals could be applied. Due to insufficient subcontracting/subconsultant opportunities and/or insufficient availability of M/WBE certified firms, SMBR has assigned no subcontracting goals for this Solicitation. However, Offerors who choose to use Subcontractors must comply with the City's M/WBE Procurement Program as described below. Additionally, if the Contractor seeks to add Subcontractors after the Contract is awarded, the Program requirements shall apply to any Contract(s) resulting from this Solicitation.

Instructions:

- a.) Offerors who do not intend to use Subcontractors shall check the "NO" box and follow the corresponding instructions.
b.) Offerors who intend to use Subcontractors shall check the applicable "YES" box and follow the instructions. **Offers that do not include the following required documents shall be deemed non-compliant or nonresponsive as applicable, and the Offeror's submission may not be considered for award.**

☒ **NO, I DO NOT intend to use Subcontractors/Sub-consultants.**

Instructions: Offerors that do not intend to use Subcontractors shall complete and sign this form below (Subcontracting/Sub-Consulting ("Subcontractor") Utilization Form) and include it with their sealed Offer.

☐ **YES, I DO intend to use Subcontractors /Sub-consultants.**

Instructions: Offerors that do intend to use Subcontractors shall complete and sign this form below (Subcontracting/Sub-Consulting ("Subcontractor") Utilization Form), and follow the additional Instructions in the (Subcontracting/Sub-Consulting ("Subcontractor") Utilization Plan). Contact SMBR if there are any questions about submitting these forms.

| Offeror Information | |
|--|--|
| Company Name | MORRIS + McDANIEL, INC. |
| City Vendor ID Code | 0000004616 |
| Physical Address | 117 SOUTH SAINT ASAPH ST. |
| City, State Zip | ALEXANDRIA, VIRGINIA 22314 |
| Phone Number | 703-836-3600 |
| Email Address | CONTACT@MORRISANDMCDANIEL.COM |
| Is the Offeror City of Austin M/WBE certified? | <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES |
| Indicate one: <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> MBE/WBE Joint Venture | |

Offeror Certification: I understand that even though SMBR did not assign subcontract goals to this Solicitation, I will comply with the City's M/WBE Procurement Program if I intend to include Subcontractors in my Offer. I further agree that this completed **Subcontracting/Sub-Consulting Utilization Form**, and if applicable my completed **Subcontracting/Sub-Consulting Utilization Plan**, shall become a part of any Contract I may be awarded as the result of this Solicitation. Further, if I am awarded a Contract and I am not using Subcontractor(s) but later intend to add Subcontractor(s), before the Subcontractor(s) is hired or begins work, I will comply with the City's M/WBE Procurement Program and submit the **Request For Change** form to add any Subcontractor(s) to the Project Manager or the Contract Manager for prior authorization by the City and perform Good Faith Efforts (GFE), if applicable. I understand that, if a Subcontractor is not listed in my **Subcontracting/Sub-Consulting Utilization Plan**, it is a violation of the City's M/WBE

Procurement Program for me to hire the Subcontractor or allow the Subcontractor to begin work, unless I first obtain City approval of my **Request for Change** form. I understand that, if a Subcontractor is not listed in my **Subcontracting/Sub-Consulting Utilization Plan**, it is a violation of the City's M/WBE Procurement Program for me to hire the Subcontractor or allow the Subcontractor to begin work, unless I first obtain City approval of my **Request for Change** form.

DAVID M. MORRIS, Ph.D.J.D.
PRESIDENT

Name and Title of Authorized Representative (Print or Type)

David M. Morris 9/11/2020

Signature/Date

NOT APPLICABLE**SUBCONTRACTING UTILIZATION PLAN**

INSTRUCTIONS: Offerors who DO intend to use Subcontractors may utilize M/WBE Subcontractor(s) or perform Good Faith efforts when retaining Non-certified Subcontractor(s). Offerors must determine which type of Subcontractor(s) they are anticipating to use (CERTIFIED OR NON-CERTIFIED), check the box of their applicable decision, and comply with the additional instructions associated with that particular selection.

☐ I intend to use City of Austin CERTIFIED M/WBE Subcontractor/Sub-consultant(s).

Instructions: Offerors may use Subcontractor(s) that ARE City of Austin certified M/WBE firms. Offerors shall contact SMBR (512-974-7600 or SMBRComplianceDocuments@austintexas.gov) to confirm if the Offeror's intended Subcontractor(s) are City of Austin certified M/WBE and if these firm(s) are certified to provide the goods and services the Offeror intends to subcontract. If the Offeror's Subcontractor(s) are current valid certified City of Austin M/WBE firms, the Offeror shall insert the name(s) of their Subcontractor(s) into the table below and must include the following documents in their sealed Offer:

- Subcontracting/Sub-Consulting Utilization Form (completed and signed)
- Subcontracting/Sub-Consulting Utilization Plan (completed)

☐ I intend to use NON-CERTIFIED Subcontractor/Sub-Consultant(s) after performing Good Faith Efforts.

Instructions: Offerors may use Subcontractors that ARE NOT City of Austin certified M/WBE firms ONLY after Offerors have first demonstrated Good Faith Efforts to provide subcontracting opportunities to City of Austin M/WBE firms.

STEP ONE: Contact SMBR for an availability list for the scope(s) of work you wish to subcontract;

STEP TWO: Perform Good Faith Efforts (Check List provided below);

STEP THREE: Offerors shall insert the name(s) of their certified or non-certified Subcontractor(s) into the table below and must include the following documents in their sealed Offer:

- Subcontracting/Sub-Consulting Utilization Form (completed and signed)
- Subcontracting/Sub-Consulting Utilization Plan (completed)
- All required documentation demonstrating the Offeror's performance of Good Faith Efforts (see Check List below)

GOOD FAITH EFFORTS CHECK LIST –

When using NON-CERTIFIED Subcontractor/Sub-consultants(s), **ALL of the following CHECK BOXES MUST be completed in order to meet and comply with the Good Faith Effort requirements and all documentation must be included in your sealed Offer. Documentation CANNOT be added or changed after submission of the bid.**

☐ **Contact SMBR.** Offerors shall contact SMBR (512-974-7600 or SMBRComplianceDocuments@austintexas.gov) to obtain a list of City of Austin certified M/WBE firms that are certified to provide the goods and services the Offeror intends to subcontract out. (Availability List). Offerors shall document their contact(s) with SMBR in the "SMBR Contact Information" table on the following page.

☐ **Contact M/WBE firms.** Offerors shall contact all of the M/WBE firms on the Availability List with a Significant Local Business Presence which is the Austin Metropolitan Statistical Area, to provide information on the proposed goods

and services proposed to be subcontracted and give the Subcontractor the opportunity to respond on their interest to bid on the proposed scope of work. When making the contacts, Offerors shall use at least two (2) of the following communication methods: email, fax, US mail or phone. Offerors shall give the contacted M/WBE firms at least seven days to respond with their interest. Offerors shall document all evidence of their contact(s) including: emails, fax confirmations, proof of mail delivery, and/or phone logs. These documents shall show the date(s) of contact, company contacted, phone number, and contact person.

- ☐ **Follow up with responding M/WBE firms.** Offeror shall follow up with all M/WBE firms that respond to the Offeror's request. Offerors shall provide written evidence of their contact(s): emails, fax confirmations, proof of mail delivery, and/or phone logs. These documents shall show the date(s) of contact, company contacted, phone number, and contact person.
- ☐ **Advertise.** Offerors shall place an advertisement of the subcontracting opportunity in a local publication (i.e. newspaper, minority or women organizations, or electronic/social media). Offerors shall include a copy of their advertisement, including the name of the local publication and the date the advertisement was published.
- ☐ **Use a Community Organization.** Offerors shall solicit the services of a community organization(s); minority persons/women contractors'/trade group(s); local, state, and federal minority persons/women business assistance office(s); and other organizations to help solicit M/WBE firms. Offerors shall provide written evidence of their Proof of contact(s) include: emails, fax confirmations, proof of mail delivery, and/or phone logs. These documents shall show the date(s) of contact, organization contacted, phone number, email address and contact person.

(Offerors may duplicate this page to add additional Subcontractors as needed)

| Subcontractor/Sub-consultant | |
|---|--|
| City of Austin Certified | <input type="checkbox"/> MBE <input type="checkbox"/> WBE Ethnic/Gender Code: <input type="checkbox"/> NON-CERTIFIED |
| Company Name | |
| Vendor ID Code | |
| Contact Person | Phone Number: |
| Additional Contact Info | Fax Number: E-mail: |
| Amount of Subcontract | \$ |
| List commodity codes & description of services | |
| Justification for not utilizing a certified MBE/WBE | |

| Subcontractor/Sub-consultant | |
|---|--|
| City of Austin Certified | <input type="checkbox"/> MBE <input type="checkbox"/> WBE Ethnic/Gender Code: <input type="checkbox"/> NON-CERTIFIED |
| Company Name | |
| Vendor ID Code | |
| Contact Person | Phone Number: |
| Additional Contact Info | Fax Number: E-mail: |
| Amount of Subcontract | \$ |
| List commodity codes & description of services | |
| Justification for not utilizing a certified MBE/WBE | |

| SMBR Contact Information | | | |
|--------------------------|--------------|--|--------------------|
| SMBR Contact Name | Contact Date | Means of Contact | Reason for Contact |
| | | <input type="checkbox"/> Phone OR <input type="checkbox"/> Email | |

FOR SMALL AND MINORITY BUSINESS RESOURCES DEPARTMENT USE ONLY:

Having reviewed this plan, I acknowledge that the Offeror ☐ HAS or ☐ HAS NOT complied with these instructions and City Code Chapters 2-9A/B/C/D, as amended.

Reviewing Counselor_____
Date

I have reviewed the completing the Subcontracting/Sub-Consultant Utilization Plan and ☐ Concur ☐ Do Not Concur with the Reviewing Counselor's recommendation.

Director/Assistant Director or Designee_____
Date



**DEVELOPMENT AND IMPLEMENTATION OF A
SELECTION PROCESS FOR
FIREFIGHTER CADET HIRING
FOR
THE CITY OF AUSTIN, TEXAS
RFP # 8300 EAD3012REBID**



Submitted to:

Ms. Erin D'Vincent, Procurement Supervisor
City of Austin, Purchasing Office
Municipal Building
124 W 8th Street, Room 310
Austin, Texas 78701
Telephone: (512) 974-2500

Submitted by:

David M. Morris, Ph.D., J.D., President
Morris & McDaniel, Inc.
117 South Saint Asaph Street
Alexandria, Virginia 22314
Telephone: (703) 836-3600
Facsimile: (703) 836-4280
E-Mail: contact@morrisandmcdaniel.com
www.morrisandmcdaniel.com

September 11, 2020



Washington, D.C.

New Orleans, LA

Jackson, MS

Memphis, TN

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SHOULD YOU NEED ADAPTED PROMOTIONAL PROCEDURES THAT ADDRESS THE COVID-19 VIRUS

While Morris & McDaniel has responded to all elements of the RFP, we offer for your consideration, the option to provide the jurisdiction procedures that are responsive to the challenges that are presented by COVID-19. We have met this challenge with several jurisdictions and continue to work with all jurisdictions to adapt to their unique situation.

Each jurisdiction requires different solutions but there are common elements to the solutions. We stand ready to consult on these alternate procedures with the jurisdiction to explore ways to proceed with a process that might otherwise face cancellation or postponement. We will respond promptly to an email inquiry at contact@morrisandmcdaniel.com or by telephone at 703.836.3600.

We are facing rapidly changing circumstances that, for an unknown future, affect the ability to administer standard promotional processes that require gatherings of large numbers of candidates. Morris & McDaniel operates on the philosophy that the continued ability of public safety organizations to function effectively during these times **is critical** and that having the best leaders within those organizations is more vital than ever.

Delaying the necessary processes to select that leadership should be the last resort. With that in mind, we have developed successfully, alternate promotional processes that maintain the validity of the process while meeting, in all respects, the recommendations of CDC and other governmental advisory bodies intended to protect the safety of candidates themselves. Our procedures are designed to be flexible to allow adaptations to meet the unique situation of the particular client jurisdiction.



SUBMISSION OF REQUIRED FORMS





**ADDENDUM
CITY OF AUSTIN, TEXAS**

RFP 8300 EAD3012

Addendum No: 1

Date of Addendum 6/24/2020

This addendum is to incorporate the following changes to the above-referenced solicitation.

1.0 Questions:

- Q1. Are there elements of the existing process that AFD values and wants incorporated into the proposed solution?
- A1. Section 2.1 Background, and Section 3.1.1 Recommended Solution in the Scope of Work describe the elements of the existing process that AFD considers critical.
- Q2. The RFP states that AFD is looking for innovative concepts in assessing candidates' skills that are more inviting for the recruit and AFD hopes to improve the experience for the test taker. What aspects of the process does AFD want improved upon to enhance the candidate experience and are there other opportunities for improvement with the current process?
- A2. AFD currently runs hundreds of candidates through the process in large groups which can be intimidating, especially for first-time and/or non-traditional applicants. AFD hopes to make all test-takers more comfortable so they perform at their best. AFD is looking for the experts to provide their insight regarding opportunities for improvement.
- Q3. The RFP references a "confirmatory job analysis." When did the last job analysis occur, what steps were included, and what were the results? Will the selected Contractor be able to speak with and/or collect data from City of Austin job experts (i.e., Firefighter incumbents and supervisors) as part of the confirmatory job analysis?
- A3. A job analysis was conducted by the current Contractor prior to the start of the 2019 hiring cycle and the results belong to the current Contractor. The selected Contractor will be able to meet and collect data from AFD job experts.
- Q4. What is the tolerance for conducting a more thorough job analysis (e.g., conducting site visits, administering a job analysis survey) if the selected Contractor deems it necessary?
- A4. AFD understands the importance of this task and will provide assistance coordinating resources so that the selected Contractor can conduct a thorough job analysis. The only mitigating factor that would limit these activities would be restrictions based on COVID-19 transmission.
- Q5. What constructs are being measured at each stage in the existing assessment process?
- A5. Section 3.1.1 of the Scope of Work provides examples of the constructs. The Job Analysis would further define that list.
- Q6. Is AFD seeking strictly an off-the-shelf tool(s), or is an assessment customized to AFD an option? If AFD is seeking an off-the-shelf tool, are you open to a local validation study if a validity transportability study isn't feasible?
- A6. Either option will be considered and AFD is open to a local validation study if a validity transportability study isn't feasible.
- Q7. To help better understand the initial screening process, is it possible to receive a copy of a blank Fire Cadet application?
- A7. The Fire Cadet Application has not been updated for the 2021 process. Reviewing the information at the AFD recruiting website might provide the information being requested.
www.JoinAFD.com.



- Q8. What minimum qualifications are used to screen the initial pool of applicants and identify those eligible to proceed to the written exam?
A8. Please review the information at www.JoinAFD.com.
- Q9. What type of structured interview is currently used?
A9. See Section 3.1.1 in the Scope of Work.
- Q10. How many evaluators interview each candidate?
A10. None, it's videotaped.
- Q11. How is the interview scored?
A11. See Section 3.1.4 in the Scope of Work.
- Q12. What was the reason for administering both the written test and structured interviews to all 1,800 candidates?
A12. Using a cut-score is difficult to defend in court.
- Q13. Is the City opposed to a process where only candidates who pass the cognitive exam would be invited to participate in the oral exam?
A13. Not opposed if "passing" is defensible.
- Q14. How were the written test and structured interview scores combined and used to identify the 200 candidates invited to complete the physical ability test, the medical exam, and the psychological evaluation? Was there a cut-off score on the individual components or the combined score across the two assessments? Were the combined scores rank-ordered?
A14. Combined score and rank-ordered.
- Q15. How many computers are available for candidates to use during test administration?
A15. None.
- Q16. How many candidates are assessed concurrently during written test administration?
A16. See Section 2.1 in the Scope of Work.
- Q17. How many days did it take to administer assessments to all 1,800 candidates?
A17. Two days.
- Q18. How many candidates are assessed concurrently during the oral exam?
A18. Groups of 100-150 arrive at specific intervals for check-in and move through stations in the process. It is possible to have up to 500 candidates moving through different stages on the same campus at the same time.
- Q19. How many days did it take to administer oral exams to all 1,800 candidates?
A19. Two to three days.
- Q20. Were all candidates included on the hiring list invited to participate in the training academy? If not, on what basis were individuals on the list prioritized?
A20. AFD uses the rank-ordered hiring list created by the selected Contractor to coordinate groups of 100-200 candidates going through the assessments described in Section 3.2.3 in the Scope of Work.
- Q21. Do you anticipate hiring needs to change due to COVID-19?
A21. The next hiring cycle will begin in May 2021. If COVID-19 transmission is not mitigated by that time, AFD will need to make adjustments.



- Q22. Are there any anticipated changes to the hiring process due to COVID-19, such as online testing?
A22. AFD has not discussed potential changes to the 2021 process based on the pandemic. Changes would be done in consultation with the selected Contractor.
- Q23. What type of performance ratings or data is currently collected or tracked for both the academy and on the job? Would this information be available for use in a validation study?
A23. AFD has extensive documentation of cadet and probationary firefighter performance evaluation. This information would be available to the selected Contractor for a validation study.
- Q24. Is there an established process for reviewing the adverse impact of the assessment process? Are there any reporting requirements in that regard (e.g., to the DOJ)?
A24. AFD has an established process for reviewing adverse impact in the hiring process. AFD was under a DOJ consent agreement that was lifted last year.

2.0 ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

BY THE SIGNATURES affixed below, this Addendum is hereby incorporated into and made a part of the above-referenced solicitation.

ACKNOWLEDGED BY:

DAVID M. MORRIS, Ph.D. J.D.
Vendor Name

[Signature]
Authorized Signature

7/7/2020
Date

RETURN A COPY OF THIS ADDENDUM
to the Purchasing Office, City of Austin, Texas with your Offer.
Failure to do so may constitute grounds for rejection of your Offer.

ORDINANCE NO. 20111110-052

AN ORDINANCE AMENDING CHAPTER 2-7, ARTICLE 6 OF THE CITY CODE RELATING TO ANTI-LOBBYING AND PROCUREMENT; AND RENUMBERING SUBSECTION 2-7-999.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:

PART 1. Chapter 2-7 Article 6 (*Anti-Lobbying and Procurement*) of the City Code is amended to read:

2-7-101 Definitions.

(1) AGENT means a person authorized by a respondent to act for or in place of respondent, including a person acting at the request of respondent, a person acting with the knowledge and consent of a respondent, or a person acting with any arrangement, coordination, or direction between the person and the respondent.

(2)[(4)] AUTHORIZED CONTACT PERSON means the person identified[designated] in a City solicitation as the contact regarding the solicitation, or the authorized contact person's designee during the course of the no-contact period.[for questions and comments regarding the solicitation.]

(3) CITY EMPLOYEE in this article means a person employed by the City.

(4) CITY OFFICIAL is defined in Section 2-7-2 (*Definitions*).

(5) DIRECTOR means the director of a department to which the purchasing officer has delegated authority for enforcing this Chapter.

(6)[(2)] NO-CONTACT PERIOD means the period of time from the date of issuance of the solicitation until a contract is executed. If the City withdraws the solicitation or rejects all responses with the stated intention to reissue the same or similar solicitation for the same or similar project, the no-contact period continues during the time period between the withdrawal and reissue.

(7)[(3)] RESPONSE means a response to a solicitation[and includes a bid, a quote, a request for proposal response or a statement of qualifications].

(8)[(4)] **RESPONDENT** means a person responding to a City solicitation including a bidder, a quoter, responder, or a proposer. The term "respondent" also includes:

(a) an owner, board member, officer, employee, contractor, ~~[lobbyist,~~ subsidiary, joint enterprise, partnership, agent, lobbyist, or other representative of a respondent;

(b) a person or representative of a person that is involved in a joint venture with the respondent, or a subcontractor in connection with the respondent's response; and

(c) a respondent who has withdrawn a response or who has had a response rejected or disqualified by the City.

(9)[(5)] **REPRESENTATION** means a communication related to a response to a council member, official, employee, or City representative that is intended to or that is reasonably likely to~~[agent of the City which]~~:

(a) provide[s] information about the response;

(b) advance[s] the interests of the respondent;

(c) discredit[s] the response of any other respondent;

(d) encourage[s] the City to withdraw the solicitation;

(e) encourage[s] the City to reject all of the responses; ~~or~~

(f) convey[s] a complaint about a particular solicitation; or[-]

(g) directly or indirectly ask, influence, or persuade any City official, City employee, or body to favor or oppose, recommend or not recommend, vote for or against, consider or not consider, or take action or refrain from taking action on any vote, decision, or agenda item regarding the solicitation.

(10)[(6)] **SOLICITATION** means an opportunity to compete to conduct business with the City that requires City Council approval under City Charter Article VII Section 15 (Purchase Procedure).~~[includes an invitation for bids, a request for proposals, a request for quotations, and a request for qualifications.]~~

(A) The Council finds that persons who enter a competitive process for a city contract voluntarily agree to abide by the terms of the competitive process, including the provisions of this Chapter.

(B)~~(A)~~ The Council finds that it is in the City's interest:

(1) to provide the most fair, equitable, and competitive process possible for selection among potential vendors in order to acquire the best and most competitive goods and services; and

(2) to further compliance with State law procurement requirements.

(C)~~(B)~~ The Council intends that:

(1) each response is considered on the same basis as all others; and

(2) respondents have equal access to information regarding a solicitation, and the same opportunity to present information regarding the solicitation for consideration by the City.

(D) A solicitation includes, without limitation, an invitation for bids, a request for proposals, a request for quotations, a request for qualifications, and a notice of funding availability.

(E) Unless this Article is invoked by Council, this article does not apply to an opportunity to compete for City social service funding; City cultural arts funding; federal, state and City block grant funding; and the sale or rental of real property.

(F) A representation excludes communication between a City of Austin attorney and a respondent's attorney.

2-7-103 Restriction on Contacts.

(A) During a no-contact period, a respondent shall make a representation only through the authorized contact person.

(B) ~~[If d] During the no-contact period, a respondent may not make a representation to a City official or to a City employee other than to the authorized contact person. [makes a representation to a member of the City Council, a member of a City board, or any other official, employee, or agent of the City, other than to the authorized contact person for the solicitation, the respondent's response is disqualified from further consideration except as permitted in this article.]~~ This

prohibition also applies to a vendor that makes a representation and then becomes a respondent.

(C) The prohibition of a representation during the no-contact period applies to a representation initiated by a respondent, and to a representation made in response to a communication initiated by a City official or a City employee ~~[member of the City Council, member of a City board, or any other official, employee, or agent of the City]~~ other than the authorized contact person.

(D) If the City withdraws a solicitation or rejects all responses with a stated intention to reissue the same or similar solicitation for the same or similar project, the no-contact period shall expire after the ninetieth~~[sixtieth]~~ day after the date the solicitation is withdrawn or all responses are rejected if the solicitation has not been reissued during the ninety~~[sixty]~~ day period.

(E) For a single vendor award, the no-contact period shall expire when the first of the following occurs: contract is executed or solicitation is cancelled.

(F) For a multiple vendor award, the no-contact period shall expire when the last of the following occurs: all contracts are executed, negotiations have been fully terminated, or the ninetieth day after the solicitation is cancelled.

(G) The purchasing officer or the director may allow respondents to make representations to city employees or city representatives in addition to the authorized contact person for a solicitation that the purchasing officer or the director finds must be conducted in an expedited manner; an expedited solicitation is one conducted for reasons of health or safety under the shortest schedule possible with no extensions. The purchasing officer's or director's finding and additional city employees or city representatives who may be contacted must be included in the solicitation documents.

(H) Representations to an independent contractor hired by the City to conduct or assist with a solicitation will be treated as representations to a City employee.

(I) A current employee, director, officer, or member of a respondent, or a person related within the first degree of consanguinity or affinity to a current employee, director, officer or member of a respondent, is presumed to be an agent of the respondent for purposes of making a representation. This presumption is rebuttable by a preponderance of the evidence as determined by the purchasing officer or director.

(J) A respondent's representative is a person or entity acting on a respondent's behalf with the respondent's request and consent. For example, a respondent may email their membership list and ask members to contact council

members on the respondent's behalf. The members are then acting per respondent's request and with their consent, and the members have become respondent representatives.

~~[(E) This section does not apply to a representation:~~

~~(1) made at a meeting convened by the authorized contact person to evaluate responses;~~

~~(2) required by Financial Services Department protest procedures for vendors;~~

~~(3) made at a Financial Services Department protest hearing;~~

~~(4) provided to the Small & Minority Business Resources Department in order to obtain compliance with Chapter 2-9 (Minority Owned and Female Owned Business Enterprise Procurement Program);~~

~~(5) made to the City Risk Management coordinator about insurance requirements for a solicitation; and~~

~~(6) made in public at a meeting held under the Texas Open Meetings Act.]~~

2-7-104 Permitted Representations.

(A) If City seeks additional information from respondent, [If a respondent seeks to make a representation to a City official employee, or agent during the no-contact period], the respondent shall submit the representation in writing only to the authorized contact person. The authorized contact person shall distribute the written representation in accordance with the terms of the particular solicitation. This subsection does not permit a respondent to amend or add information to a response after the response deadline.

(B) If respondent wishes to send a complaint to the City, the respondent shall submit the complaint in writing only to the authorized contact person. [If a respondent seeks to make a complaint about a particular solicitation to a member of the City Council or a member of a City board, the respondent should include the complaint in his written representation to the authorized contact person.] The authorized contact person shall distribute a[the] complaint regarding the process to members of the c[City] c[ouncil] or members of the City board, to the d[Director] of the d[Department] that issued the solicitation, and to all respondents of the particular solicitation. However, the director or purchasing officer shall not permit

distribution of any complaint that promotes or disparages the qualifications of a respondent, or that amends or adds information to a response. A determination of what constitutes promoting or disparaging the qualifications of a respondent or constitutes amending or adding information is at the director's or purchasing officer's sole discretion. Bid protests are not subject to this subsection. Documents related to a bid protest may not be forwarded to council under this subsection.

(C) If a respondent makes a written inquiry regarding a solicitation, the authorized contact person shall provide a written answer to the inquiry and distribute the inquiry and answer to all respondents of the particular solicitation.

(D) If a respondent is unable to obtain a response from the authorized contact person, the respondent may contact the director~~[Director of the Public Works Department]~~ or p[P]urchasing o[O]fficer as appropriate.

(E) A respondent may ask a purely procedural question, for example a question regarding the time or location of an event, or where information may be obtained, of a City employee other than the authorized contact person. This section does not permit a respondent to make suggestions or complaints about the contract process that constitute a representation to a City employee other than the authorized contact person. Notwithstanding this subsection, a respondent may not ask a procedural question of a councilmember, a councilmember's aide, or of a City board member except in a meeting held under the Texas Government Code, Chapter 551 (Open Meetings Act).

(F) This Article allows representations:

(1) made at a meeting convened by the authorized contact person, including meetings to evaluate responses or negotiate a contract;

(2) required by Financial Services Department protest procedures for vendors;

(3) made at a Financial Services Department protest hearing;

(4) provided to the Small & Minority Business Resources Department in order to obtain compliance with Chapter 2-9A-D (the Minority-Owned and Women-Owned Business Enterprise Procurement Program);

(5) made to the City Risk Management coordinator about insurance requirements for a solicitation;

(6) made in public at a meeting held under Texas Government Code, Chapter 551 (Open Meetings Act); or

(7) made from a respondent's attorney to an attorney in the Law Department in compliance with Texas Disciplinary Rules of Professional Conduct.

(G) Nothing in this article prohibits communication regarding the solicitation between or among City officials or City employees acting in their official capacity.

(H) A contribution or expenditure as defined in Chapter 2-2 (Campaign Finance) is not a representation.

2-7-105 Notice.

(A) An employee preparing a solicitation shall include a notice in the solicitation that advises respondents of the requirements of this article, including a notice that if any City official or City employee~~[official, employee or agent of the City]~~, other than the authorized contact person, approaches a respondent for response or solicitation information during the no-contact period, the respondent is at jeopardy if he or she makes any representation in response.

(B) ~~[When a solicitation is issued that requires Council action, t]~~The authorized contact person for that solicitation shall notify council members in writing~~[each City Council member]~~ that the no-contact period for that solicitation is in effect.

(C) When a solicitation is issued that will be reviewed by a City board, the authorized contact person for that solicitation shall notify in writing each member of the board that the no-contact period for that solicitation is in effect.

2-7-106 Disclosure of Prohibited Representation.

(A) If a City official or City employee receives a representation during the no-contact period for a solicitation, the ~~[City-]~~official or employee shall notify in writing the authorized contact person for that solicitation as soon as practicable. ~~[Notification to the authorized contact person must be made using a form prescribed by the City and include any supporting documentation.]~~

(B) During the no-contact period, a City official or City employee, except for the authorized contact person, shall not solicit a representation from a respondent.

2-7-107 Enforcement.

(A) A respondent that makes a prohibited representation violates this article. If the authorized contact person for a solicitation is informed, or receives information, that a respondent has made a prohibited representation during the no-contact period, the authorized contact person shall document the representation and notify the director or purchasing officer immediately.~~[If the authorized contact person for a solicitation finds that a respondent has made a prohibited representation during the no-contact period, the authorized contact person shall document his findings in a report and disqualify the respondent.]~~

(B) If the director or purchasing officer finds that a respondent has violated this article, the respondent is disqualified.~~[The Financial Services Department and Public Works Department shall adopt rules to administer and enforce this article. The rules must include the provision of written notice of disqualification to the respondent, and a process to protest a disqualification.]~~

(C) If a respondent is disqualified for a solicitation and the solicitation is withdrawn or if all responses are rejected, the respondent is disqualified for a reissue of the same or similar solicitation for the same or similar project. Section 2-7-103(D) does not limit the duration of the disqualification. The director or purchasing officer may determine what constitutes a "same or similar" project for purposes of this subsection.

(D) The Financial Services Department and a department to which the purchasing officer has delegated purchasing authority shall adopt rules to administer and enforce this article. The rules must include the provision of written notice of disqualification to the respondent and a process to protest a disqualification.

(E) This article is not subject to enforcement by the Ethics Review Commission.

2-7-108 Contract Voidable.

If a contract is awarded to a respondent who has violated this article, the contract is voidable by the City.

2-7-109 Debarment.

(A) If a respondent has been disqualified under~~[violates]~~ this article more than two times in a sixty month period~~[once in a three-year period]~~, the ~~p~~P~~urchasing o~~fficer shall debar a respondent from the sale of goods or services to the City for a period not to exceed three years, provided the respondent is given written notice and a hearing in advance of the debarment.

(B) The Financial Services Department and any department to which the purchasing officer has delegated authority for enforcing this article shall adopt rules to administer and enforce this section. The rules must include a hearing process with written notice to the respondent.

2-7-110 No Criminal Penalty.

Section 1-1-99 does not apply to this article.

2-7-111 Director Discretion.

A director has the discretion to apply this Article to any other competitive process not covered by this Article.


PART 2. Section 2-7-999 is renumbered 2-7-99 and moved to the end of Article 5.

PART 3. This ordinance takes effect on December 1, 2011.

PASSED AND APPROVED

_____, November 10, 2011

APPROVED:

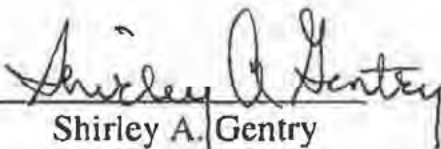

Karen M. Kennard
City Attorney

§
§
§



Lee Leffingwell
Mayor

ATTEST:


Shirley A. Gentry
City Clerk



**ADDENDUM
CITY OF AUSTIN, TEXAS**

RFP 8300 EAD3012

Addendum No: 2

Date of Addendum 7/14/2020

This addendum is to incorporate the following changes to the above-referenced solicitation.

- 1.0 **Extension:** The proposal due date is hereby extended until Thursday, July 28, 2020 at 2:00 PM, local time.
- 2.0 ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

BY THE SIGNATURES affixed below, this Addendum is hereby incorporated into and made a part of the above-referenced solicitation.

ACKNOWLEDGED BY:

MORRIS + McDANIEL, INC.
Vendor Name

Dail M. Main
Authorized Signature

7/14/2020
Date

RETURN A COPY OF THIS ADDENDUM
to the Purchasing Office, City of Austin, Texas *wlth* your Offer.
Failure to do so may constitute grounds for rejection of your Offer.

TAB 1: EXECUTIVE SUMMARY





Morris & McDaniel
Management Consultants

117 South Saint Asaph Street
Alexandria, VA 22314
Telephone: 703-836-3600
Fax: 703-836-4280
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September 11, 2020

Ms. Erin D'Vincent, Procurement Supervisor
City of Austin, Purchasing Office
Municipal Building
124 W 8th Street, RM 310
Austin, Texas 78701
Telephone: (512) 974-2500

Dear Ms. D'Vincent:

Morris & McDaniel is pleased to submit our proposal to develop and administer a selection process for Firefighter Cadet hiring to assist in identifying candidates who are best qualified for entry into the Austin, Texas Fire Department. Morris & McDaniel certifies that all information submitted in this proposal, including any supplements or later additions, is true and correct. Morris & McDaniel further certifies that we have read and understand all parts of the Proposal Preparation Requirements and Evaluation Factors for this solicitation, including without limitation the anti-lobbying and procurement rules of the City of Austin, and accepts all such requirements as a condition of this proposal. Morris & McDaniel further certifies that we are and shall remain in compliance with the requirements, provisions, terms, and conditions specified in the solicitation.

Morris & McDaniel has a long and successful history of service to fire and police jurisdictions throughout the United States. Much of this experience has involved the development of entry-level systems that solve the diversity challenge, provide merit-based lists and are legally defensible. Our record of superior performance extends over forty-four (44) years. According to a release from the City of New York, Morris & McDaniel is the only firm that provides testing services to the New York Police and Fire Department (Appendix A); furthermore, we received an A+ grading from the City on our recent Assessment Work (Appendix B). We are under contract to perform numerous fire and police projects for New York City. Current and recent clients in fire service include such national figures as Former Chief Richard "Smoky" Dyer of Kansas City (entry-level services) and former Chief Herman Brice of Palm Beach County Fire-Rescue (promotional services), both of whom were former presidents of the International Association of Fire Chiefs (IAFC). We have also been awarded and are currently working on some of the most challenging entry level fire selection projects in the nation such as New Haven CT, and a promotional fire test in Chicago. Our prior experience with Austin entry level fire assessments will also greatly aid us in identifying areas for improvements.

We are enthusiastic about the opportunity to demonstrate our abilities to render the highest caliber of professional service. Joe Nassar, Co-Owner and Vice President, or I, as Co-Owner and President, have the designated authority to enter into contract discussions and negotiations and sign a contract on behalf of Morris & McDaniel, Inc. Either principal can be contacted at the address, email and/or phone number on this cover letter during the period of evaluation and act promptly on contract administration if awarded the project. Our firm acknowledges the receipt of Addendum #1 and #2 has returned a signed copy with our proposal. Our proposal is valid for a period of one hundred eighty (180) calendar days subsequent to the RFP closing date.



Morris & McDaniel's response to RFP# 8300 EAD3012REBID due September 15, 2020 @ 2:00PM local time.5

Test Validation and Entry-Level Fire Cadet Selection Assessment Expertise

Morris & McDaniel is a national leader in conducting test, development, validation and assessment projects. We have been recognized by the Society of Industrial Organizational Psychology as being "an authoritative source" in the area of building E.E.O. defensibility into tests and personnel systems (APA; Division 14 Publication on Conducting and Evaluating Continuing Education Workshops, 1985). In terms of serving the public sector in developing legally defensible selection systems, we know of no other firm that can match our record. In our 44 years of providing protective service assessment work, our assessment procedures have been successful in enfranchising minorities and females into protective service positions, while emphasizing merit-based principles. We have never lost a legal challenge to our tests in Federal Court.

Assessment Philosophy and Strategy

Our efforts will be directed towards achieving (4) four program goals:

- a. a merit-based list with the best candidates at the top of the list,
- b. a fair and valid process so that all candidates have an equal chance,
- c. a list that achieves diversity, and
- d. a process that incorporates the AFD Core Values:
 - a process that is well defined, from beginning to end, in advance – no confusion.
 - a process that is job-related for the Firefighter position and allows AFD to make meaningful selection decisions among candidates based on their likelihood of success in the training academy and on-the-job.
 - a process that that minimizes adverse impact on minority groups and women, within the constraint of maintaining validity.
 - an efficient and cost-effective process.
 - a vendor with a proven track record.
 - we will strive to make no mistakes, and to have no controversy in the administration of the process.

The steps we propose for consideration are:

- Planning Sessions
- Job Analysis
- Presenting Assessment Procedures for Consideration and Discussion
- Validation of all Testing Components using Transportability procedures
- Multiple Choice Test
 - Entry-Level Fire Fighter Exam – a score compensatory component assessing the KSAPs determined by the job analysis to be important
- A Structured Oral Interview (SOI) – which assesses more complex dimensions, such as the ability to identify and analyze problems; the ability to make sound decisions; the willingness to be service oriented; teamwork and cooperation, and the ability to communicate orally. These dimensions are just examples and the dimensions selected would have be supported by the job analysis.
- Validation of all Testing Components before the administration using transportability procedures and criterion-related procedures for post administration, in compliance with professional standards and giving deference to all federal guidelines.



Our Firm's Professional and Work Background

The principal partner of Morris & McDaniel, Dr. David Morris, holds a Ph.D. in Psychology with licensing in Industrial/Organizational Psychology as well as a Juris Doctorate in Law with professional experience in Title VII employment law. Dr. Morris will serve as Project Director. Principal partner Joe F. Nassar, who holds a master's degree in Public Administration and Bachelor of Science Degree in Criminal Justice, will serve as Project Coordinator. Roger McMillin, our Vice President of Operations, is retired Chief Judge for the Mississippi State Appeals Court. Professional staff who will be assigned to this project are well-qualified in similar professional experience and educational background.

The following proposal will outline our firm's qualifications and the professional services we can provide to address Austin Fire Department and Civil Service Commission testing requirements as well as a detailed explanation of experience we possess to ensure professional capability in incorporating both job relatedness and validity. Having over 44 years of experience in developing, administering, and scoring entry-level testing and job-related promotional examinations for public safety positions, Morris & McDaniel is both knowledgeable and well-resourced in determining and fulfilling the testing needs of each individual client. Our emphasis on personal service as well as the "end-product" sets us apart from other large testing firms. In addition to our knowledge and background in testing, it is our commitment to serve our clients and the relationship we have with each one of them that makes us renown in our field.

Outline of What Differentiates Morris & McDaniel from Other Firms

Our firm has distinguished itself from other firms by its outstanding record in creating legally defensible procedures. Often, except in the most litigious of situations, our procedures deter litigation.

- Our firm was asked to come into New Haven, CT after the extremely polarizing law suit that went to the Supreme Court.
- Our firm was the firm asked to come into Akron, OH after the litigation on their promotional procedures lost them a cost of almost 2 million dollars.
- Our firm was asked by Chief Richard Myers to assist Sanford, FL with their police promotions after their city was the unfortunate target of international attention as well as the attention of the DOJ.
- In all the exams we have conducted for Boston, MA over the last 20 years, we have never failed to prevail in the civil service hearings.
- In addition to the above, we have been asked to conduct testing programs in some of the most dangerous environments such as Iraq where we had to develop creative solutions to a wide range of problems.
- According to a recent release by the City of New York, our firm is the sole vendor for the City of New York in providing all testing services for the New York City Police Department (NYPD) and the Fire Department of New York City (FDNY), including job analyses and civil service exam development.

Sincerely,

David M. Morris, Ph.D., J.D.

David M. Morris, Ph.D., J.D.
President DMM/bc

TAB 2: AUTHORIZED NEGOTIATOR

Contact: David M. Morris, Ph.D., J.D.
President

Morris & McDaniel, Inc.
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Alexandria, VA 22314

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TAB 4: WORK PLAN & APPROACH

The decision-makers in the City of Austin and the Austin Fire Department (AFD) are seeking a comprehensive method of selecting firefighters and have identified specific CORE VALUES for the AFD's new hiring process that are critical to achieving a process that best meets its needs. In submitting a proposal for this RFP, Morris & McDaniel's proposed process solution will address the following CORE VALUES:

- A process that is well defined, from beginning to end, in advance – no confusion
- A process that is job-related for the Firefighter position, and allows AFD to make meaningful selection decisions among candidates based on their likelihood of success in the training academy and on-the-job
- An efficient and cost-effective process
- A vendor with a proven track record
- No mistakes, no controversy in the administration of the process

Morris & McDaniel understands these challenges better than any other firm, because of firsthand experience with these challenges and can create a selection program for fire fighters that is:

- merit-based and fair for all candidates
- legally defensible and valid
- diverse in outcome

This is the challenge that is inherent in this request for professional assistance. Our firm understands these issues and has successfully met the challenge on numerous occasions in major fire and police departments.

Understanding of Need

Many cities are seeking improved ways to provide an entry-level screening and selection program for the Entry-Level Firefighter Position. Morris & McDaniel has a long successful history assisting jurisdictions to develop and implement entry-level procedures for public safety positions. Our firm is the premier firm for providing these services in a valid, legally defensible manner, addressing the problems of jurisdictions and meeting all diversity needs. Our firm was the "go to" firm and asked to assist without bid for resolving long protracted consent decrees for several jurisdictions, including Philadelphia, Kansas City and the Mississippi Highway Patrol. More recently we are the only firm that has worked successfully with the Fire Department in New Haven, Connecticut after the US Supreme Court Decision in the Ricci case. Many of these clients had struggled for years



and sometimes decades with marginal or totally unsuccessful systems. Each of the steps in the system we propose for you is tried and successful in their purpose and strategically designed to address the challenge.

Morris & McDaniel proposes for consideration a multi-step process that has been successful in other jurisdictions in providing a quality pool of diverse candidates. We understand that each jurisdiction is different and that these procedures will need to be tailored to Austin's unique circumstances. To emphasize, this proposal will:

- Be fair to all candidates.
- Be based on best practice and based on tried and successfully tested procedures.
- Based on proven successful procedures.
- Create a highly qualified pool of diverse candidates.

Our proposed solution addresses the AFD's CORE VALUES and will provide as our goal:

- A process that is well defined, from beginning to end, in advance – no confusion.
- A process that is job-related for the Firefighter position and allows AFD to make meaningful selection decisions among candidates based on their likelihood of success in the training academy and on the job.
- A process that minimizes adverse impact on minority groups and women, within the constraint of maintaining validity.
- A vendor with a proven track record.
- we will strive to make no mistakes, and to have no controversy in the administration of the process.



2.2 Minimum Qualifications

Offerors who do not meet these minimum requirements will not be considered for this solicitation.

1. Proposer shall have experience in implementing hiring solutions:

- a. With municipal fire departments with authorized strength of at least 300 firefighters, and
- b. With applicant pools that are 1,500 persons or greater.

Morris & McDaniel easily exceeds this requirement with the assessment services provide to the City of Austin as well as 3 others, City of Kansas City Missouri, New Haven Connecticut, and Stamford Connecticut.

2. Offeror shall have hiring solutions that are currently being utilized by an agency of similar size and scope to this contract and have been so for at least one (1) year. Offerors whose hiring solutions don't meet this requirement will not be evaluated.

Our hiring solutions have been in production for at least one (1) year with agencies similar in size and scope to this contract.

3. Offeror shall be able to produce documentation of the validity of proposed assessment tools in assessing Firefighter Cadet job-related critical skills and abilities.

Morris & McDaniel is able to meet the requirement of producing documentation of the validity of the proposed assessment tools in assessing Firefighter Cadet job-related critical skills and abilities. In addition, please see Appendix E for further reference to the validity of our assessment tools.

3.0 Tasks/Requirements

3.1 Contractor's Responsibilities

3.1.1 Recommended Solution. The Offeror shall identify its recommended solution for the design and administration of a Fire Cadet selection process based on the CORE VALUES and other background information described in this RFP. The hiring selection process must include, at a minimum, a cognitive test, and an oral assessment process. The hiring selection process may include non-written selection devices. Pass/fail type exams may be used to establish candidate pools that are at least minimally qualified to continue in the hiring process. The cognitive



assessment shall test for multiple cognitive components. The Offeror will decide which and how many cognitive components to include. In doing so, the Offeror shall:

- Use cognitive components that have been deemed to be important for successful performance as an Austin fire fighter (non-exclusive examples: Verbal Comprehension, Verbal Expression, Problem Sensitivity, Deductive Reasoning, Inductive Reasoning, Information Ordering, Numeric Facility, Mathematical Reasoning, Mechanical Aptitude, and Spatial Orientation).
- Make reasonable efforts to explore the availability of, and if available, use cognitive components which have been shown to reduce or eliminate disparate impact upon African Americans, Hispanics and Women without diminution of job-relatedness as set out in this subsection.

The oral assessment process shall be video captured. Evaluators will be provided at least 8 hours of training. This evaluator training will include frame-of-reference training designed to reduce evaluator panel variance. Currently, the successful Contractor selects and trains the evaluators. Our current Contractor uses local educators (current and retired High School and College teachers) which works well for AFD. Applicants who successfully complete all of the screening and testing procedures will be placed on an eligibility list in the rank order determined from their composite scores on all scored selection devices used in that hiring cycle. Successful Contractor shall create the eligibility list in rank order.

The overall process shall enable AFD to select Fire Cadets who can best meet AFD's job performance and behavioral requirements, while minimizing adverse impact within the constraint of validity. In evaluating Offers received, AFD will look for methodology and deliverables that are consistent with existing professional, scientific, and regulatory standards, and best practices, for employee selection processes.

Offerors should be aware that their recommended solution may be modified as a result of discussion and consultation with AFD, either during or after the selection decision is made.

Morris & McDaniel recommends the following assessment solutions for the design and administration of a Fire Cadet selection process based on the CORE VALUES and other background information described in RFP_8300_EAD3012REBID_PAC1_v1:



Cognitive component – to assess basic cognitive abilities (e.g., Verbal Comprehension) deemed important for successful performance as an Austin firefighter. Verbal Comprehension, Verbal Expression, Problem Sensitivity, Deductive Reasoning, Inductive Reasoning, Information Ordering, Numeric Facility, Mathematical Reasoning, Mechanical Aptitude, and Spatial Orientation

Non-Cognitive Component – to assess work styles and other personal characteristics deemed important for successful performance as an Austin firefighter.

Structured Oral component – to assess more complex skills (e.g., Decision making) and other personal characteristics (e.g., Integrity) deemed important for successful performance as an Austin firefighter. The Structured Oral component also assesses Verbal Expression (aka Oral Expression) which is an important job-relevant basic cognitive ability.

Basic Reading Ability Procedure – to assess the minimum qualification of being able to read in English (as described under RFP Section 2.1, page 2). Morris & McDaniel proposes this assessment as an option for a pre-screening component. From a purely logistic point of view, the purpose of the reading assessment is to reduce the applicant pool by eliminating those candidates who are the least likely to be able to complete Academy training or successfully perform on the job. Use of this component might benefit AFD by reducing the administrative burden but also give value by assuring that candidates that are in the top group are minimally qualified.

Morris & McDaniel offers our proposed solutions with the understanding that they may be modified as a result of discussion and consultation with AFD, either during or after the selection decision is made.

3.1.2 The Offeror's recommended solution shall describe the assessment tool(s) that the proposer believes will best address the CORE VALUES and other background information described above. With regard to each assessment tool, written and oral, please provide the following information:

Morris & McDaniel believes that our proposed solution best addresses all elements of the RFP. In the following sections, we describe each assessment measure's origins, design, and content, including test items, number and type of each item, and versions concerning its origin and current version, constructs covered, design, number and type of test questions, and comparable alternate



versions. In addition, sample items from each measure are presented.

Before addressing the above elements, we draw attention to the linkage between our proposed assessments to address Austin Fire Department's (AFD) Core Values (aka PRIDE) in the table below.

Each of our proposed assessments contribute to the selection of individuals whose capacity to adhere to these values are strongest (Cognitive) and can be demonstrated through their decision-making (Structured Oral). Specifically, our Cognitive Component represents job-relevant qualities that underpin a firefighter's ability to acquire, develop, and apply advanced skills and knowledge in furtherance of the Core Values. Our Structured Oral component elicits behaviors related to the Core Values based on the specific thematic content of the individual scenarios and explicitly assess Public Service and Engagement (via Teamwork/Service Orientation). More so, we wish to highlight that our proposed Non-Cognitive component includes specific content that aligns with each Core Value as shown in the below table.

| Austin Fire Department Core Value (PRIDE) | Morris & McDaniel's Non-Cognitive Component Content Areas |
|--|---|
| Public service & Engagement | Teamwork/Service Orientation Interpersonal Skills Diversity / Tolerance |
| Responsibility & Accountability | Work Ethic Initiative |
| Innovation & Sustainability | Initiative Self-confidence |
| Diversity & Inclusion | Teamwork/ Service Orientation Diversity / Tolerance |
| Ethics & Integrity | Integrity |

3.1.2.1 Origin: Who developed this assessment? Who supports and maintains it now? When was the present form of the assessment released?

Cognitive

The earliest versions of the Cognitive Component were developed by Morris & McDaniel staff in the late 1990s. Maintenance and support for the Cognitive component is performed by Morris & McDaniel staff. The present form of the Cognitive Component was released in 2003 and has been



used as part of Austin's Fire Cadet Selection process beginning in 2013 with some modifications over the years through test maintenance and feedback from clients.

Non-Cognitive

Early versions of the Non-Cognitive Component were developed by Morris & McDaniel staff in the 1980s. Maintenance and support for the Non-Cognitive component has been the continuing responsibility of Morris & McDaniel staff. The present form of the Cognitive Component was released in 2009 and was used first experimentally as part of Austin's Fire Cadet Selection process since 2013 and applied to the process in the last administration.

Structured Oral

Morris & McDaniel's Structured Oral component consists of short written scenarios or situations. Identical content is not repeated across multiple administrations. Instead new job-relevant content is created and tailored to meet each jurisdiction's unique requirements. That said, thematic scenario content may be similar across administrations. For example, one common theme involves decision making as it applies to resolving an interpersonal conflict between coworkers. Using that example, the thematic structure may be repeated, but the setting, participants, and other conditions are modified. Morris & McDaniel staff support and maintain the Structured Oral development process and content from each administration. The Structured Oral process was developed by Morris & McDaniel staff in the early 1980s and has been modified over time. The same process has been implemented with Austin's Fire Cadet Selection process since 2013.

3.1.2.2 List and define the constructs (knowledge, skills, abilities, personality, interests, experience) the proposed assessment measures.

All constructs (e.g., knowledge, skills, abilities, personality, interests, experience, or other personal characteristics) used in each proposed assessment measure were demonstrated to be job-relevant for the general position of entry-level firefighter, but explicitly relevant to AFD entry-level firefighters. For each proposed measure we list the relevant construct along with its definition in the table below. To facilitate comparison, construct definitions were adapted from the Office of Personnel Management's MOSAIC competencies (Office of Personnel Management, 2013) and the Department of Labor's O*NET classification (National Center for O*NET Development, 2020).



Cognitive Component: Construct Definitions

| Construct | Definition |
|---|---|
| Mathematical Computation / Numeric Facility | Performs computations such as addition, subtraction, multiplication, and division correctly; Solves practical problems involving formulas and percentages. |
| Memorization | Recalls information that has been presented previously. |
| Mechanical Reasoning | Mechanical reasoning, also known as mechanical aptitude, is measured by the degree of familiarity with everyday physical objects, tools, and devices, especially their function, use, size, shape, weight, and appearance. |
| Spatial Ability | Knows one's location in relation to the environment; determines where other objects are in relation to one's self (for example, when using a map); Sees things in the mind by mentally organizing and processing symbols, pictures, graphs, objects, or other information (for example, sees a building from a blueprint, or sees the flow of work activities from reading a work plan). As used here, spatial ability collectively refers to Spatial Orientation, Spatial Scanning, Observational Judgment (aka Flexibility of Closure), and Visualization |
| Reading Comprehension (aka Verbal Comprehension) | Understands and interprets written material, including technical material, rules, regulations, instructions, reports, charts, graphs, or tables; applies what is learned from written material to specific situations. |
| Deductive Reasoning | Ability to apply general rules to specific problems to produce answers that make sense. |
| Inductive Reasoning | Ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events). |
| Information Ordering | Ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations). |



Non-Cognitive Component: Construct Definitions

| Construct | Definition |
|--|--|
| Teamwork/ Service Orientation | Actively looks for ways to help people. Works interdependently with other firefighters or co-workers to achieve a common goal. Accepts accountability to and direction from peers and supervisors. Demonstrates a genuine interest and concern for the welfare of the community and its citizens, the department, and the members of the department. A willingness to participate in community and department affairs. Shows respect individual differences of citizens, co-workers, and others without regard to such characteristics as their gender, race, beliefs, or cultural background. Sets-aside personal interests and individual competitiveness in the service of common goal. |
| Work Ethic | Ability to be productive, diligent, conscientious, timely, and loyal; Ability to be self-disciplined and self-motivated |
| Integrity | Acts in an honest, fair, and ethical manner, in both actions and words which causes a person to do the right thing, even if no one else will know; Avoids criminal acts, conflicts of interest, or the appearance of the same |
| Multi-Tasking (aka Time Sharing) | Shifts between multiple tasks rapidly; Maintains attention on more than one task simultaneously. |
| Interpersonal skills | Shows understanding, friendliness, courtesy, tact, empathy, concern, and politeness to others; develops and maintains effective relationships with others; may include effectively dealing with individuals who are difficult, hostile, or distressed; relates well to people from varied backgrounds and different situations; is sensitive to cultural diversity, race, gender, disabilities, and other individual differences. |
| Diversity/ Tolerance | Able to work cooperatively with others who are different from one's self (e.g., gender, race/ethnicity, sexual orientation, religious beliefs, disability, cultural values). |
| Initiative | Anticipates the need for action, offers or volunteers assistance before being asked. |
| Self-Confidence | Capacity to believe in one's ability to achieve a goal; Persists in goal-directed behavior in the face of initially failed attempts. |
| Work-related substance abuse & risk- taking | Ability to avoid influence of substances that impair one's ability to perform the job accurately, efficiently, or safely; Avoids high-risk behaviors. |
| Discipline | Avoids disciplinary or other censorship actions. |



| Construct | Definition |
|------------------------|---|
| <i>Turnover</i> | Willingness to honor hiring commitment; Likelihood of remaining in position and not quitting when faced with criticism or errors; Remains in position sufficiently long to achieve return on training investment from Department. |



Structured Oral Component: Construct Definitions

| Construct | Definition |
|--|--|
| <i>Problem Identification & Analysis</i> | The ability to quickly identify a problem and to analyze it; to notice details or phenomena; to sort out pertinent information; to foresee the consequences of various alternatives. To what extent can the individual obtain relevant information from available information and screen out less essential details? Does the individual misinterpret information? Demonstrates perceptions of an interaction between various aspects of the problem and between various actions taken or available to be taken. To what extent can the individual use data and related information in order to evaluate a problem? To what extent does the individual logically interpret information in order to solve problems? |
| <i>Decision Making</i> | The ability to make sound decisions promptly on difficult problems; the exercise of judgment and consideration of available information; the willingness to make a decision when required. Does not delay action on important items; takes firm position and makes position clear. Evaluates situation to determine action to be taken. Basically, to what extent does the individual use all information to take the most appropriate action and exhibit a willingness to make decisions when necessary? |
| <i>Teamwork/ Service Orientation</i> | Actively looks for ways to help people. Makes strong commitment to teamwork. Works interdependently with other firefighters or co-workers to achieve a common goal. Accepts accountability to and direction from peers and supervisors. The ability to demonstrate a genuine interest and concern for the welfare of the community and its citizens, the department, and the members of the department. A willingness to participate in community and department affairs. The ability to respect individual differences of citizens, co-workers, and others without regard to such characteristics as their gender, race, beliefs, or cultural background. Sets-aside personal interests and individual competitiveness in the service of common goal. |
| <i>Oral Communication (aka Verbal Expression)</i> | The ability to express ideas clearly, concisely, and effectively in oral form; to listen attentively and with comprehension. Speaks clearly and is easy to follow; uses good grammar; is verbally fluent; is well organized; does not talk too fast; does not talk haltingly; does not have distracting verbal mannerisms ("uh," "um," "you know"). |
| <i>Deductive Reasoning</i> | Ability to apply general rules to specific problems to produce answers that make sense. |
| <i>Inductive Reasoning</i> | Ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events). |



| Construct | Definition |
|-----------------------------|---|
| Information Ordering | Ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations). |

3.1.2.4 Describe the assessment design, e.g., fixed item pool, adaptive testing, other.

All three of Morris & McDaniel's proposed components are designed as summative job-relevant assessments of an individual applicant's overall performance and are not designed for formative evaluation of individuals (i.e., diagnostically). In addition, each component's content is based on a fixed set of items (i.e., not an adaptive test design). Additional design characteristics specific to each of components are explained in Section 3.1.2.5.

3.1.2.5 Items: How many items does the assessment contain? Describe each type of item and response format in the assessment. Provide a sample of each item type.

Cognitive

The Cognitive Component will have 91 questions arranged in a multiple-choice format. Each question will have four response options. Scoring is based on the applicant's selection of the single best response among options presented. A total score is obtained from a sum of the scored items. A sample question is provided in Appendix E.

Non-Cognitive

The Non-Cognitive components comprises 125 to 145 multiple choice questions. The number of response options vary from two to ten. Scoring is polytomous, where each items score depends on the specific response option selected. Individual item response option values range from -3 to +3 points. A total score is obtained from a sum of the scored items. A sample question is provided in Appendix E.

Structured Oral

The Structured Oral component presents candidates with four situations (scenarios) and asks the candidate to respond orally as to how they would handle or react to the situations. It is an open-response format. A sample question is provided in Appendix F.



3.1.2.6 Alternate Forms: Are alternate forms available? If yes, how many alternate forms? How was form comparability established?

Alternate forms of all tests are available. We have the capacity to have 9 different alternate forms. Through a systematic rotation of the items, we can conduct tests continuously. We monitor test results and do routine item maintenance.

3.1.2.7 How can AFD decision makers preview the assessment? Is an assessment demo available?

AFD can review a sample of an assessment that has been used in the past in similar situations (provided as Appendix E and Appendix F to this proposal). The exact test that will be assembled or developed for AFD has not been assembled, but it will be assembled after the job analysis and provided to AFD SMEs for review and approval.

3.1.3 Assessment Development and Validation. Describe the assessment development process for a written and an oral assessment and attach a copy of relevant technical report(s) or manual(s). Provide additional information on the following:

The development of a written and oral assessment is guided by the principles of psychometrics. Specifically, we follow the principles of the AERA, APA, NCME Standards for Educational and Psychological Testing and the Principles for the Validation and Use of Personnel Selection Procedures of the Society of Industrial and Organizational Psychology (Division 14 of the American Psychological Association). The process for the Austin Fire Department will be developed and conducted in such a manner as to conform to both professional standards and governmental guidelines. We use only trained, licensed psychometrists to write our test items, and we recommend all test items be reviewed by competent approved SMEs. We have used combinations of traditional multiple-choice questions that assess knowledge, and scenario-based questions that assess both application of knowledge as well as management and supervisory skills and abilities.

In the following subsections, Morris & McDaniel describes and summarizes the technical characteristics for the proposed Cognitive, Non-Cognitive, and Structured Oral components. In responding to this section of the RFP we draw attention to two sources of empirical data for the



components' predictive and content validity, namely transportable (i.e., generalized) and local.

The most valuable validity is local validity and we have substantial local validity that has been collected over the years of our contracts. According to the DOJ expert Dr. Dave Jones, our test is the most valid in the industry.

In addition, we have additional validity from other jurisdictions. Most validation evidence is established in one or more jurisdictional settings and then its evidence is generalized (or transported) to the intended operational setting, AFD in the present case. To transport validity finding from one setting to a new setting, comparability of the position's requirements, content, and context generally must be demonstrated. Morris & McDaniel presents results from this type of validation in our response.

In addition, Morris & McDaniel is uniquely situated to provide results from Austin of our proposed solutions based on local validation results as well. For local validation results, a transportability study is not required. The local results provide existing direct evidence for our proposed solution's reliability, validity, and freedom from bias based on prior use in AFD's entry-level selection process. Since 2013, Morris & McDaniel has provided these assessments to AFD which helped the City in obtaining its release from the Consent Decree.

Detailed technical criterion-related validation reports are included in Appendix G.

3.1.3.1 Summarize available evidence for criterion-related validity conducted by your company.

In the following subsection, Morris & McDaniel presents results from two large criterion-related validity studies, one conducted for AFD, the other for a large midwestern metropolitan fire department (MWFD). The results presented are from the most recent reports submitted and approved by the respective agencies; and in addition, we want to note that criterion-validation efforts are ongoing at both agencies.

3.1.3.1.1 Provide the number of studies completed, total sample size of each, number of organizations and types of jobs included, criterion measures used, and uncorrected mean r_{xy} .

Morris & McDaniel has completed five criterion validity studies for the position of entry-level



firefighter, using five criterion measures (Academy scores, Academy Mentor ratings, Departmental probationary performance appraisals, Departmental annual performance appraisals, Morris & McDaniel developed behavioral ratings, and Morris & McDaniel developed behavioral observation ratings). The uncorrected mean r_{xy} across these clients and measures was .35 ($SD = .066$, $n = 760$). The studies' samples ($n = 78$, $n = 413$, $n = 64$, $n = 93$, and $n = 112$) were drawn from three organizations.

To put the validity coefficients into perspective, we present the following general rules from the U.S. Department of Labor (2000) as a guide to their interpretation:

1. Validity coefficients represent the strength of the association between predictor and criterion; therefore, larger coefficients are better.
2. Validity coefficients should be statistically significant to be considered as having any potential value to employers.
3. Whether the size of a validity coefficient should be considered as "good" or not depending on the context of the test's use. That said, the rule of thumb for judging the value of a validity coefficient are:
 - Above .35 is very beneficial;
 - .21 to .35 are likely to be useful;
 - .11 to .20 depends on the context; and
 - Below .11 is unlikely to be useful.

[Source: U.S. Department of Labor's guidebook Testing and Assessment: An Employer's Guide to Good Practices (2000).]

3.1.3.1.2 Describe any studies performed by your company (including results) conducted specifically on Firefighter Cadet or Firefighter applicants.

The validation study results summarized in Section 3.1.3.1.1 and 3.1.3.1.3 all pertain specifically to the entry-level Firefighter applicants.

3.1.3.1.3 Summarize separately any studies (including results) in which fire academy outcomes, supervisor ratings, and job performance results were used as criterion measures.



In the below table we separately present results from a sample of criterion measures, including fire academy score, fire academy mentor ratings, and post-hire job performance ratings. These results further demonstrate how Morris & McDaniel's proposed solution yields outcomes that are very beneficial for selecting future firefighters.

Summary of Criterion-related Validation Study Results

| Agency / Position | Total Tested population | Total Validation Sample Size | Criterion measures used (sample size) | Validity Coefficient (uncorrected) Composite Predictor Score |
|--------------------------------|--------------------------------|-------------------------------------|--|---|
| MWFD / Entry-level Firefighter | 4,976 | 413 | Agency's Post-Hire Performance Appraisal (n = 190) | .31 ** |
| | | | Morris & McDaniel's Supplemental Performance Rating (n = 67) | .29 * |
| AFD / Entry-level Firefighter | 1,676 | 93 | Fire Academy Composite Score (n = 93) | .37 ** |
| | | | Agency's Probationary Firefighter Evaluation (n = 83) | .22 * |
| | | | Morris & McDaniel's Performance Observation Score (n = 34) | .35 * |

Asterisks indicate statistically significant results, * $p < .05$ and ** $p < .01$.

3.1.3.1.4 Provide evidence that the cognitive assessment has a demonstrable criterion-related validity, using a Pearson correlation coefficient, of at least .28 (corrected using only predictor range restriction and criterion unreliability with overall job performance as the criterion used to validate the test.

The uncorrected Pearson correlation coefficients shown below demonstrate Morris & McDaniel's Cognitive assessment's relationship to overall on-the-job performance criteria. While corrections for criterion unreliability are presented also, we note that each of the uncorrected coefficients exceed .28.



Summary of Criterion-related Validation Study Results for the Cognitive Assessment

| Agency / Position | Criterion measures used (sample size) | Uncorrected Validity Coefficient (Pearson <i>r</i>) Cognitive Component Score | Corrected For Range Restriction | Corrected For Range Restriction and Criterion Unreliability |
|--------------------------------|--|---|---------------------------------|---|
| AFD / 2015 | Morris & McDaniel's Performance Observation Score (n = 34) | .39 * | 0.58 | 0.66 |
| MWFD / Entry-level Firefighter | Morris & McDaniel's Supplemental Performance Rating (n = 68) | .41 ** | 0.67 | 0.71 |
| MWFD | Department Post-Hire Annual Performance Appraisal (n = 78) | .30 ** | 0.43 | 0.54 |
| NNFD | Morris & McDaniel's Supplemental Performance Rating (n = 79) | .31 * | 0.50 | 0.55 |
| NNFD | Morris & McDaniel's Performance Observation Score (n = 79) | .30 * | 0.48 | 0.57 |

Asterisks indicate statistically significant results, * $p < .05$ and ** $p < .01$. By convention, significance levels for corrected coefficients are not marked, but remain significant.

We acknowledge that the additional correction for range restriction was permitted; however, we believe, to be fair, that reporting those results would present an over-correction of the predictor-criterion relationship. Further, whereas the analyses producing the above Cognitive component coefficients relied on the same validation study samples previously cited, we note that the coefficients were calculated specifically for the purpose of responding to this RFP and, therefore, do not appear in the attached technical reports.



3.1.3.2 Describe other existing types of validity evidence.

In addition to the aforementioned criterion-related validity, Morris & McDaniel's proposed solutions have been demonstrated content valid for entry-level firefighter selection. The transportability of the validity evidence for our proposed solution is transferred not only to Austin, but to any jurisdiction using our solution when the similarity of the targeted position and validated position is established. It is important to note that direct evidence of the content validity for our proposed solutions have been established directly for AFD's entry-level firefighters.

3.1.3.3 Summarize available evidence to show reduction of adverse impact in previous administrations of your assessment tool. Provide locations of these administrations for verification of results.

AFD conducted a diversity study comparing the minority hiring rate since Morris & McDaniel's assessments (i.e., 2013 and 2015 hiring cycles) were used with the minority hiring rates for 10-year period prior to incepting Morris & McDaniel's solutions. The percent change in the below chart shows that Morris & McDaniel's assessment solutions substantially improved diversity.

Diversity Hiring Comparison

| | 10-year period prior to using Morris & McDaniel's selection solutions (2003 – 2012) | 3-year period since using Morris & McDaniel's selection solutions (2013 – 2015) | Percentage Change |
|-------------------|--|--|----------------------|
| Females | 10.2% | 10.2% | No change |
| African Americans | 4.2% | 12.3% | + 293% |
| Hispanics | 17.1% | 26.9% | + 157% |

[Source: COA Presentation September 2017]

In the next table, we present specific adverse impact results from the selection process used in 2012 (test developed by another vendor) with the 2017 adverse impact results using Morris & McDaniel's process. The 4/5ths results when Morris & McDaniel's assessment evidence no adverse impact (4/5ths values less than .80 indicate disparity); however adverse impact was found in 2012 process for both African Americans and Hispanics. Similarly, results from two



standard deviation test (2 SD), a statistical test of adverse impact (aka adverse impact ratio test) show substantial reductions in adverse impact for African American and Hispanic candidates. Equally important while the 2012 results were statistically significant (value greater than 1.96 demonstrate statistically significant adverse impact), no statistically significant adverse impact was found for African Americans or Hispanics using Morris & McDaniel's assessment.

Adverse Impact Comparison

| Group | Assessment | 4/5ths | 2 SD Tests |
|-------------------|-----------------------------|--------|------------|
| African Americans | 2012 (Prior vendor) | .61 | 9.72 |
| | 2017 (Morris & McDaniel) | .85 | 1.02 |
| Hispanics | 2012 (Prior vendor) | .74 | 8.75 |
| | 2017 (Morris & McDaniel) | .91 | .98 |

Note: 4/5ths values less than .80 or 2 SD values greater than 1.96 demonstrate adverse impact. 2012 results obtained from <https://www.clearinghouse.net/chDocs/public/EE-TX-0470-0001.pdf>. Lastly, we wish to highlight that the above results span the time period that the City of Austin was under Consent Decree from the U.S. Department of Justice (DOJ). During this period, DOJ has reviewed and signed off on the assessment process Morris & McDaniel implemented (i.e., 2013, 2015, and 2017 hiring cycles).

3.1.3.4 What reading difficulty level is required to take the assessment? How was this reading difficulty level determined?

For the proposed assessments, the average reading grade level needed 7.2 (SD = 1.7) for the Cognitive, 7.7 (SD = 1.2) for the Non-Cognitive, and 6.9 (SD = 1.7) for the Structured Oral.

To obtain the reading level of the tests, readability analyses were performed on assessment content. Morris & McDaniel's readability analysis includes standard readability indices such as the Flesch-Kincaid, as well as other algorithms that focus on unique elements of sentence and word structure (e.g., ARI, FORCAST, Gunning-Fog, SMOG). We average the results from these multiple methods to obtain an overall reading level estimate (grade level) because job-specific



terminology or jargon creates variation in reading level estimates.

3.1.3.5 Describe the assessment's reliability and how it was estimated.

Reliability for each proposed assessment is calculated at .85 for the Cognitive, .87 for the Non-Cognitive, and is not applicable for the Structured Oral. The reliability estimates for the Cognitive and Non-Cognitive components were based on internal consistency, specifically Cronbach Alpha. Scoring of the SOI is a consensus-based process. Through the consensus process, final ratings are agreed upon by a panel of raters. The consensus process, by definition, eliminates individual, per assessor ratings, and thereby precludes calculation of a reliability estimate. The infeasibility of calculating reliability for the SOI process is not a disadvantage in that the consensus method has long been held as a rating process that produces decisions that are of higher quality and make more use of the information and behaviors available to the raters (Nemiroff & Pasmore, 1975; Pasmore, Nemiroff, & Ford, 1975). Reliability for the composite assessment score was calculated at .92 using Mosier's Composite Reliability.

3.1.3.6 Describe any utility studies that have been completed and summarize the results.

Utility analysis (UA) is a proven quantitative method to evaluate investment in human resource programs. Specifically, we used the local data obtained from AFD's 2015 hiring process to perform a utility study, applying the Brogden-Cronbach-Gleser (BCG) model. The results demonstrated that Morris & McDaniel's assessment process yielded a return of \$4,624,782 for AFD based on the 153 candidates who moved forward in that hiring cycle. These results are comparable to the return-on-investment achieved for other clients.

Annualized Utility Analysis Results for AFD.

| Utility Value ΔU | $(\Delta r_{xy} * S_{dy} * Z_x * T * N_h)$ | $- (\Delta C * N_a)$ |
|--------------------------|--|----------------------|
| \$4,624,782.30 | \$4,902,282.30 | - \$277,500.00 |

3.1.3.7 Describe the process used to determine whether the assessment is appropriate for particular jobs. Is there an established process for documenting validity transportability? If so, please describe it.



Each of Morris & McDaniel's proposed assessments is evaluated for job-relevancy for each targeted position, either through conduct of a job analysis or a transportability study. Further, each assessment as developed is based on content validity, as noted in our response to 3.1.3.2.

3.1.3.8 Describe the composition of any norm group(s) used to set critical scores or provide percentile equivalents of applicant scores.

Not applicable.

3.1.3.9 What organizational performance outcome(s) can AFD expect?

Overall, AFD can expect that the candidates will have a greater likelihood of being successful not only in the Academy, but on the job as well (as demonstrated by our attached criterion-related validity studies). The data show a positive correlation between the test scores and how well candidates do in the academy as well as how well they do on the job. We also believe our process will further aid AFD in achieving their PRIDE goals.

3.1.3.10 Describe any ongoing or planned research involving this assessment and any design changes planned for the next 18 months.

Morris & McDaniel engages in ongoing research and development of assessments we develop. We specifically highlight the ongoing criterion-related validation studies being conducted for AFD on our proposed solutions which have been previously validated. Over the next 18 months, Morris & McDaniel staff in collaboration with HR and Department staff will be collecting criterion data that include, but are not limited to Fire Academy performance, Probationary Performance Evaluations, Supplemental Mentor and Supervisor ratings. This criterion data is being collected for firefighters hired during the 2017 and 2019 selection cycles. To clarify, each administration of the Structured Oral process requires new content, but the process remains basically unchanged.

3.1.4 Administration of the Assessments. The Offeror should describe their recommended strategy for administering and scoring each recommended assessment tool. The cognitive assessment must be at least 20% of the total composite score. Special note: Offerors will be responsible for staffing and administering their recommended assessments with limited support from the City, as described in Section 3.2, below. This responsibility can be met either through



direct staffing by the vendor or subcontracting with another firm acceptable to the City. Expenses to include, but not limited to, paying for evaluator's travel and lodging expenses to be paid by the successful Contractor. A single invoice with all travel expense receipts shall be submitted at the conclusion of each evaluation.

Morris & McDaniel proposes a scoring solution that will weigh the Cognitive Component at least 20% of the total composite score. We acknowledge the payment of the evaluator's expenses will be paid by Morris & McDaniel and we will submit travel receipts and expenses in a single invoice.

3.1.4.1 Describe the administration of the assessment(s) in the AFD environment and describe the assessment sessions; their content, who would administer them, and the number of applicants that can be accommodated in each one. Provide specific information on the following:

Morris & McDaniel staff will be on-site to conduct and monitor each assessment administration. Our purpose is to ensure the developed procedures are being administered equally and fairly to all candidates. With the large number of candidates expected, administration will occur in large-capacity venues (e.g., 3,000 plus). Our firm will work closely with the AFD to develop a facility checklist needed for the administrations regarding their physical layout and configuration, accessibility for the candidates, parking, levels, etc. Our firm has experience in conducting this type of exercise in the past. Based on our knowledge and experience with AFD, we believe all applicants can be accommodated efficiently.

Professional staff members of Morris & McDaniel will be present during the administration of the exam battery (Entry-Level Exam). Administration follows written test procedures prepared for each assessment. Morris & McDaniel will provide the appropriate number of copies of all exam instruments and answer sheets and will be responsible for the delivery and the scoring of all exam answer sheets in an expeditious manner and results reported to the City.

Specific to the Structured Oral Process, each candidate's presentation will be video/audio recorded. Morris & McDaniel will provide all personnel, equipment, and supplies needed to implement the SOI and will be responsible for conducting the video recording process.

3.1.4.2 Timing: Is the assessment timed? If so, what is the time limit, and how is elapsed time measured? If not, how long does it typically take to complete?



In the past it has been timed. Assessment includes Reading exam (45 minutes), Entry Level Abilities and Behaviors Pre-Test Study Booklet (25 minutes), and Entry Level Abilities and Behaviors Examination (3 hours and 15 minutes).

3.1.4.3 What administration methods are supported, e.g., paper-and-pencil, PC-based, or web-based?

All are supported. Paper and pencil have been determined by the client and the consultant, in the past, to be most appropriate. For the Structured Oral Interview, responses are video and audio recorded and timed. Timing is provided by the recording and the candidates are informed of the time by a clock on the recording.

3.1.4.4 List any facilities, equipment or materials required to administer the assessment at each testing site, including system requirements other than a PC and internet connection.

Administration of the written examination process that includes Reading exam (45 minutes), Entry Level Abilities and Behaviors Pre-Test Study Booklet (25 minutes), and Entry Level Abilities and Behaviors Examination (3 hours and 15 minutes):

The written examination component can be administered by paper/pencil, web based, or PC based. Each of these has its pros/cons. Austin Fire Department has chosen to use the paper/pencil method in the past as this administration allows for more candidates to be administered in one sitting. Normally, up to 600 candidates may be tested at one time. The Palmer Events Center has served as an excellent venue for the exam. Registration staff, test proctors, and other monitors are needed for a paper/pencil administration and depending on the candidate numbers, it could take up to 50 proctors for the entire process. Monitor instructions are pre-recorded, and timers are used by the test administrator. Morris & McDaniel is prepared to serve in any capacity the City chooses, either as the main test administrator or assisting Civil Service and the Fire Department.

Due to recent events, the City of Austin and the Austin Fire Department may choose to administer the written examination component by computer. Morris & McDaniel has the examination accessible on-line as well as the ability to load exams on specific computers. Continuous recruitment is best achieved by this method as candidates may schedule appointments



throughout the testing cycle on their own time offering better options for candidates and yielding a better candidate pool. A number of our clients have chosen to use community colleges as testing centers for examination administration. For a nominal fee, these testing sites individually schedule and administer the exam to candidates. Otherwise, the Training Academy or other City computer labs could serve as testing site options. These testing centers would need internet capabilities, or our software installed onto the computers.

Administration of the structured oral interview that includes 3 scenarios:

The structured oral interview can also be administered by computer in the same setting as the written examination. With the use of headphones and microphones at a secure testing station (preferably partitions between each computer), candidates, after the written examination and a brief candidate orientation, orally respond to 3 scenarios. The candidates have 4 minutes to prepare and respond to each scenario. At the end of the three scenarios, the candidates' videos are saved to the computer and either transferred to a hard drive or uploaded to a secure site at the end of the day.

Traditionally, the structured oral interview has been administered at a local high school with approximately 70 classrooms. Depending on the number of candidates, the administration could occur over a couple of days; the number of versions developed is contingent upon how many half days would be needed. Candidates are given an appointment report time, registered, given a brief orientation, and then each candidate is escorted into an individual classroom to respond to 3 scenarios. Candidates have 4 minutes to prepare and respond to each scenario. Exercise versions change every morning and afternoon. Candidates are sequestered until all candidates have reported for a morning session. Once all morning session candidates have checked in and registered, sequestered candidates are released. Registration staff and test monitors are needed for the traditional assessment process and depending on the candidate numbers, it could take up to 30 proctors for the entire process.

3.1.4.5 Proctoring: Is proctoring required or recommended? Why or why not? If not, can the assessment be administered remotely? If so, describe how candidate identification is verified and threats to validity and test security are minimized.

Proctoring is required. The Society for Industrial and Organizational Psychology (SIOP) recommends proctoring for high stakes tests such as this. This requirement is designed to prevent



breaches of test security and ensure the identity of the test taker. Remote testing would be considered; however, it is likely to substantially increase the City's cost because the number of sites would increase.

3.1.4.6 Describe your firm's record keeping, archiving and assessment data maintenance processes.

Morris & McDaniel takes numerous steps to ensure the accuracy and completeness of its record-keeping, archiving and assessment data maintenance process. Established protocols and procedures were followed, including, but not limited to the following:

1. Experienced professionals directed the development, implementation, data collection, and analysis of the assessment components and criterion measures.
2. Data collection and storage is conducted in accordance with written procedures and other instructions designed to ensure the accuracy as well as the privacy and confidentiality of sensitive information.
3. Where feasible, Morris & McDaniel staff supervised or conducted the collection of information
4. The procedures used to guide these processes are in accordance with generally accepted scientific and professional standards.

3.1.4.7 What methods are recommended for using results to make operational decisions, e.g., cutoffs, bands, combination with other assessments in a compensatory model? How are qualifying thresholds established? Note: AFD will not provide the gender or race/ethnic background of candidates, nor will we allow your firm to collect such information, prior to your firm's scoring of the assessment tools.

This is best determined after the job analysis, the final test components, and other relevant facts are known. Morris & McDaniel will work collaboratively with AFD staff to develop recommendations for operational decisions that best serve AFD's needs.

3.1.4.8 Can assessment scoring or content be customized? If so, how can it be customized? At what cost?

Scoring and content can be customized. Morris & McDaniel will gladly discuss if Austin desires more customization and the related costs.



3.1.4.9 Score reports: Include a sample of each available report format. Do clients have access to their own score database? If so, can they run score report queries?

If the City decides to use the same system implemented in 2019 then yes, they will have access to the data base and can run report queries.

3.1.5 Defensibility. Describe how the Proposer would defend the validity of its assessments and proposed hiring process if challenged in court.

As described in other sections of our response, Morris & McDaniel is able to defend its proposed assessment process based on job-relevant development and demonstrated content and criterion-related validity. In addition, the DOJ and the Federal Judge's decree ending the consent decree is additional evidence of our program's defensibility. In addition, Dr. Dave Jones, the DOJ's expert said our tests were the most valid in the industry.

In addition to any other narrative the Proposer deems relevant, please indicate:

3.1.5.1 What examinee reaction data have been collected? What do they show?

None are available.

3.1.5.2 How large are racial/ethnic group score differences in standardized mean differences between racial/ethnic groups (d scores)?

Samples of standardized mean differences can be found in our attached report.

3.1.5.3 Have any of the proposed assessments produced adverse impact ratios (AIRs) of less than 80% on African American/Black, Hispanic and/or female applicants? What are typical AIRs for the assessments for these groups? On what sample and sample sizes are these adverse impact ratios based?

Typical results are very favorable. The specifics of these results are shown in the sample validity report and in our response to Section 3.1.3.3.

3.1.5.5 Has use of any proposed assessment been legally challenged or formally grieved/questioned by a group of individuals or organization(s)? If yes, by whom, before whom,



when and under what circumstances? What was the outcome?

AFD results were challenged. The DOJ expert reported to Morris & McDaniel that our tests were the most valid in the industry. Although alternatives were presented that had less adverse impact, the alternatives eliminated much of the test content and therefore were not equally valid from a content standpoint. The results of our tests substantially increased diversity and as a result the Consent Decree was ended.

3.1.5.6 Explain how decision rules (e.g., critical scores, score bands, composite scores) for use of assessment scores in the selection process would be developed and defended?

Morris & McDaniel will work collaboratively with the City, AFD, and collective bargaining representative, as appropriate, to develop decision rules that best meet legal requirement and professional standards. We are not proposing the use of critical scores, per se, for the individual assessments. We anticipate that a final rank-ordering will be the method that is most favorable.

Regardless of the specific method used, our firm incorporates into any recommendation a number of factors such as the number of expected Academy classes/seats, diversity goals, cost/benefit comparison of various methods, future business needs of AFD, and the past history of candidate pass/fail ratios.

3.1.6 Cooperation. The successful Offeror shall agree to provide within three (3) business days, or other timeframe approved by AFD, and information about the design, scoring, or administration of its proposed hiring process, and any information about the composition, use, or validity of its written or oral assessments, in response to a written request from a federal or state enforcement agency resulting from the performance of this contract. This requirement will apply regardless of whether such request is made to the proposer or to the City. In addition, the successful Contractor shall agree to provide on reasonable notice testimony about its assessments and the hiring process under this contract required in any court or in administrative proceeding.

Morris and McDaniel agrees to provide within three (3) business days, or other timeframe approved by AFD, and information about the design, scoring, or administration of its proposed hiring process, and any information about the composition, use, or validity of its written or oral assessments, in response to a written request from a federal or state enforcement agency



resulting from the performance of this contract. This requirement will apply regardless of whether such request is made to the proposer or to the City. In addition, Morris and McDaniel will provide on reasonable notice testimony about its assessments and the hiring process under this contract required in any court or in administrative proceeding.

3.1.7 Hiring Cycle Timeline. The City's goal is to conduct the first administration of the hiring process under this contract by May 2021.

Our timelines in the past have matched the requirements above. Morris and McDaniel will conduct the first administration of the hiring process under this contract by May 2021. Please refer to the Gantt Chart provided.

3.1.8 Miscellaneous:

3.1.8.1 Many of the requirements originate in the collective bargaining agreement between City and Austin Firefighters Association. A copy of the relevant section of this agreement is attached.

We obtained a copy of the 2017 collective bargaining agreement and foresee no issues or conflicts in meeting assessment-related requirements contained therein. Respectfully, we note that this attachment was not included in the RFP.

3.1.8.2 Adverse impact reporting should be able to address a series of questions produced by the City. See the attached sample.

Morris & McDaniel routinely produces reports containing adverse impact results, which include, but may not be limited to, 4/5ths Rule (80% Rule), chi-square test, Fisher's Exact test, two standard deviation test (Z_D), or Z_{IR} .

Respectfully, we note that this attachment was not included in the RFP.

We claim as confidential by virtue of being a "trade secret" as defined by the following information:

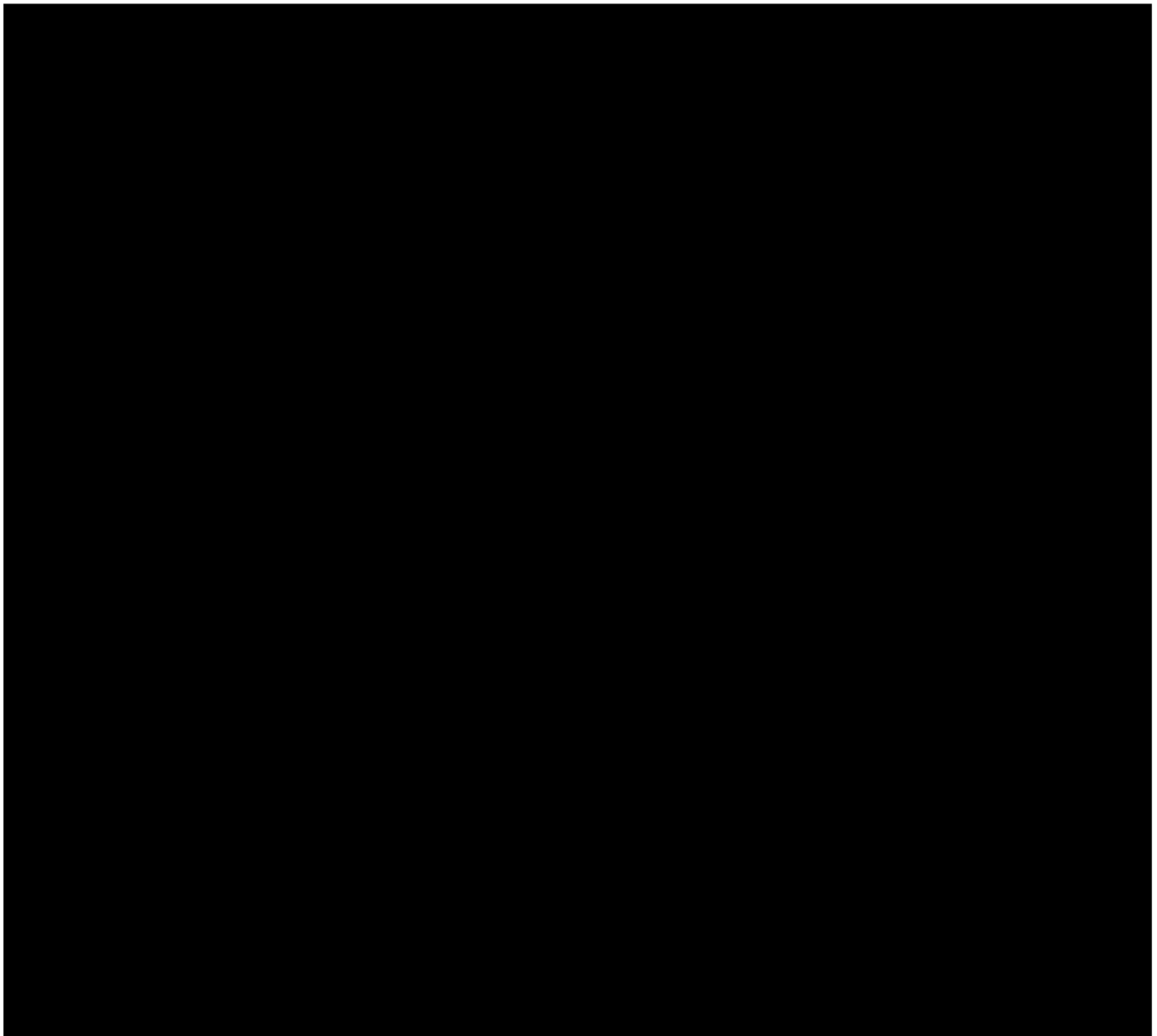
The portion of our proposal that sets out the Proposed Methodology we would use to accomplish the objectives set out in the RFP. The rationale in that the description of our methodology is beyond question a compilation of information used in our business that was



uniquely developed by our company and which provides a business advantage over those who do not know it; it also being a process or procedure used by our company “irrespective of novelty.”

Note: Morris & McDaniel, Inc. does not wish to disclose our firm’s Proposed Methodology outside the scope of the proposal review by the proposal decision-makers in the City of Austin, Texas and the Austin Fire Department.

The information in this section is proprietary and confidential - Pages 42 – 60.



Project Timeline

Upon contract execution, our firm can immediately begin work on the entry-level testing for the Austin Fire Department and Civil Service Commission. We understand the timeline as provided in the Milestones/Deliverables table found in Section 5.0 of the RFP and can meet this timeline.

It is possible the City will have activities that will influence the overall project schedule, and the “real time” chronological schedule can only be developed in conjunction with the City; however, the following addresses timelines for our activities. All dates for testing will be mutually developed with the City and AFD; however, we do not foresee any circumstances that would hinder or prevent our firm from accomplishing the desired testing goal dates.

Project Control Mechanisms and Quality Control Mechanisms

At the beginning of the project, we will work with the HIPOC Committee consisting of appropriate decision-makers or their designees from the City, representatives from the Fire Department and appropriate project personnel from the Morris & McDaniel team.

Morris & McDaniel recommends contract management performance reviews to ensure the project is on course, to measure performance levels and make adjustments as necessary. The frequency of these meeting will be determined by the City and the frequency of these meetings will be adjusted if there are issues of extreme importance, tight timelines, or any problems with performance. Actions discussed at these meetings will be recorded along with responsibilities and due dates. We create “checkpoints” throughout our process to catch mistakes as early as possible. Our goal for this project is no mistakes and no confusion. We clarify roles and make certain staff members know their roles. We try to identify, where possible, how mistakes can be made. If we use suppliers, we make sure that they have quality assurance processes as well. Our firm’s quality control process includes assigning tasks to a staff member for completion with review by another staff member for quality and appropriateness after completion. If necessary, the project task will be reviewed by additional staff. After staff reviews, there is a management review prior to sharing the work with Fire subject matter experts. In essence, we believe in peer review as well as supervisory review. We follow this same process to ensure the accuracy, timeliness, and delivery of project work products, including candidate ranking lists and validity and statistical reports.



Describe how you define success for each of the tasks in your program plan.

Success is defined by the quality and diversity of the candidates. On both, the data says we have success. However, we continue to strive for improvements and will do so with Austin if we are awarded the contract.

Success is when we have met the timelines with a quality outcome as defined by the AFD CORE VALUES for the project:

- A process that is well defined, from beginning to end, in advance – no confusion
- A process that is job-related for the Firefighter position, and allows AFD to make meaningful selection decisions among candidates based on their likelihood of success in the training academy and on-the-job
- An efficient and cost-effective process
- A vendor with a proven track record
- No mistakes, no controversy in the administration of the process

Describe potential risks associated with each task and what you will do to reduce risk.

In describing the different tasks, our firm has built into the description and the options available in conducting the tasks, an operational means of assessing risks and options for reducing it. Our success can be attributed to stringent quality control. We have reviewed the steps in our assessment process and determined what happens at each step and who oversees that step. We have thoroughly documented these procedures and made certain that they are repeatable. We create “checkpoints” throughout our process to catch mistakes as early as possible. We clarify roles and make certain staff members know their roles. We try to identify, where possible, how mistakes can be made. If we use suppliers, we make sure that they have quality assurance processes as well. Our firm’s quality control process includes assigning tasks to a staff member for completion with review by another staff member for quality and appropriateness after completion. If necessary, the project task will be reviewed by additional staff. We believe in peer review as well as supervisory review. We follow this same process to ensure the accuracy, timeliness, and delivery of project work products, including candidate ranking lists and validity and statistical reports.



For example, in conducting the job analysis, the survey method is presented, and the technical conference method is presented. The risks and ways to reduce the risks are not entirely known at this point, however the client and sometimes the situation can inform us. The survey method has a high cost of employee involvement and a risk of error. Because of the errors in the survey method, it is not recommended for projects with a probability of litigation. Even though the survey is significantly less expensive for the consulting firm to conduct as compared to the up-front work required by the consultant firm, we do not recommend it for this project. The technical conference has low employee involvement, but reduced error. In addition, the survey method is much more expensive for the City due to the substantial hours required of Subject Matter Experts. Both options are presented so that in client discussions the best decision can be made.

We will present costs options for different options that the City may want to consider. Since our firm has considerable criterion data to support our procedures, we can offer alternatives for consideration, such as the previous briefly described "continuous recruitment." We are open to discussing the pros and cons of each option with the City. We will present some of the options in the pricing section. These risks are best explored with the client after the job analysis data can inform on what options can be considered.

Morris & McDaniel has the proven capacity to manage and effectively resolve challenges from potential risks often inherent in these types of processes. Select examples of some risks we've encountered related to project tasks and the steps we use to prepare for or mitigate their impact are provided below. Our list is not exhaustive, rather we present a range of potential risks or problems along with possible solutions to a variety of task-related issues to illustrate how we reduce potential risks during the process.

Project Monitoring: Morris & McDaniel projects are led and monitored by highly experienced, professional staff who are fully prepared to deal with and resolve unusual circumstances, should they arise (and they often do). Morris & McDaniel assigns a Contract Project Monitor (CPM) to each project. The CPM is also the point of contact for Morris & McDaniel and the client. When appropriate, the CPM will be the person who was the CPM previously as he/she is familiar with the client and knows many of the risks for issues that may come up within the particular jurisdiction. The CPM is responsible for keeping the project on task and making sure that all milestones are met and tasks are completed on time. In addition to the CPM, there is also senior management oversight on the CPM, provided by Dr. Morris as the Project Director.



Facilities: Morris & McDaniel staff conducts on-site inspection of facilities prior to selecting and confirming venue locations; Morris & McDaniel staff conduct on-site review of testing facilities within 48-hours of assessment administration to ensure facilities are operationally ready.

Equipment: Morris & McDaniel pre-tests all equipment that third parties provide to ensure they are operational; Morris & McDaniel routinely brings separate back-up equipment and materials.

Scheduling: We understand that schedules sometimes must be changed due to circumstances beyond the control of the City of Austin or Morris & McDaniel (e.g., natural or manmade disasters). Morris & McDaniel's organizational capacity allows us to work cooperatively and flexibly to resolve necessary changes.

Test Integrity/Security: In the administration of high-stakes testing, like that desired by the City of Austin and the Austin Fire Department, Morris & McDaniel recognizes the need to protect the integrity and security of the assessment process. As a matter of policy, we use a "need to know" restriction on access to assessment-related information, password-protected documentation, and close monitoring of all procedures (via both on-site/eye-on and empirically through internal analyses)

Morris & McDaniel is prepared to respond promptly to any risks or potential problems, including changes in schedule, potential changes in cost due to unforeseen circumstances, or any changes in the scope of work. Morris & McDaniel recognizes that a timely response to these issues is required to ensure there is no interruption to the flow of work or delays in project completion. Morris & McDaniel will actively monitor the progress of the project and conduct both internal reviews of the project steps/milestones and reviews with the City and Department in order to closely follow and adhere to the project plan and contract requirements. However, we understand that changes will inevitably occur during a project and Morris & McDaniel is committed to working with the City and Department to address and resolve any risks or potential problems in a manner that is acceptable to both parties.



Business Management

Business management will be the responsibility of the Vice President of Logistics/Operations. He will monitor operations and ensure we invoice for work accomplished according to an agreed upon schedule. They will be supported by the Chief Financial Officer of Morris & McDaniel.

Morris & McDaniel certifies that our accounting system conforms to generally accepted accounting principles, is sufficient to comply with the contract's budgetary and financial obligations and is sufficient to produce reliable financial information.

Based on current project commitments, our firm can work with the City on mutually identified dates for the Entry-Level Fire Test Battery Assessment for Fire Cadet Position.



TAB 5: EXPERIENCE AND QUALIFICATIONS

Morris & McDaniel was founded in 1976, and the principals of the company have been full-time in the business of Industrial and Organizational Psychology ever since including the development, scoring, administration, validation and legal defense, if necessary, of entry-level and promotional examinations for public safety occupations. From 2004 to 2007, we operated an International Division, assisting the U.S. Department of Defense in assessing police candidates for the Iraqi Civilian Police Force.

Our company has offices in the following cities:

- Washington, D.C. (Alexandria, Virginia);
- Atlanta, Georgia;
- New Orleans, Louisiana; and
- Jackson, Mississippi.



Our first project as a corporate entity was an empirical content validation of entry-level tests used by a protective service organization. Based on our study, the lawyers for the plaintiffs elected not to challenge the testing process. Since that time, we have conducted a wide variety of human resource projects for public and private sector organizations



including protective services and public safety, with extensive experience in promotional testing in the fields of fire/EMS, law enforcement, and corrections. Specifically, Morris & McDaniel has provided consulting services to numerous fire departments (including Kansas City Fire Department, Memphis Fire Department, Norfolk VA Fire Department, Orange County Fire Rescue, Brevard County Fire Rescue Department, Palm Beach County Fire Rescue); law

enforcement organizations (including AMTRAK, Boston Police Department, State of Florida Department of Law Enforcement, Georgia Association of Chiefs of Police, Harbor Police Port of New Orleans, Iraqi Police Service, Maryland State Police, Massachusetts State Police, Mississippi Highway Patrol, Palm Beach City Sheriff's Office, Houston Police Department, Jefferson Parish Sheriff's Office, University of Texas at Houston Police Department, U. S. Capitol Police, U. S. Secret Service); airports (including Jackson International Airport Authority, Metropolitan Washington Airport Authority); three legal departments (including the City of



Philadelphia Legal Dept.); Civil Service Offices (including MS State Personnel Board, Massachusetts Department of Personnel Administration, Wyoming State Department of Personnel); educational institutions (including MS Dept. of Education, Palm Beach Community College, Santa Fe Community College); and private corporations (including Cargill Corporation, Canal Barge, Inc., Placid Refining Company, Saks, Inc., Wayne Farms, Inc.).

There are few firms that can match our depth of experience in developing valid, legally defensible, and fair tests for protective service and public safety organizations. We have developed combinations of written tests, performance-based assessment centers, structured interviews, and training and experience ratings for numerous fire, law enforcement, and corrections departments in several states. We have conducted job analyses and have written law enforcement and fire promotion written knowledge tests for a variety of ranks. All these test items (over 3,500) were written by our staff from materials which were identified in the job analysis as being relevant; these materials included local general orders, special orders, rules and procedures, relevant sections (e.g., search and seizure) of State and Federal laws, and relevant external textbooks.

We have developed tailor-made oral boards and assessment centers to meet the specific needs of numerous protective service and public safety organizations. The exercises for these assessment centers were developed entirely by our staff, based on information derived from our job analysis efforts. We also conducted each of these assessment centers, including training of candidates, training of assessors, designing and managing the actual assessment process (candidates performing the exercises), managing the assessment council activities (assessors arriving at final scores), and providing written feedback to candidates.

In these public safety testing and assessment systems, we have assessed from 10 to 6,000 candidates at one time. In the case of the larger numbers, we have made extensive use of video-based assessment (use of video and audio equipment) for both presentation of practical exercise materials and recording of candidates' performance. We also have made use of innovative techniques such as multiple-choice in-basket and multiple-choice questions coupled with video vignettes.

We feel that our firm is unsurpassed in the development of valid, legally defensible, and fair promotional systems. Many of our promotional systems have been conducted in highly litigious situations. Most of our tests and assessments have been viewed by lawyers, as well as test candidates, as being so fair that there were no legal challenges.

Dr. Morris, Principal Project Leader, has been an expert witness in Federal Court on numerous occasions. With a few exceptions, these were Title VII cases. Dr. Morris, a



Psychologist with licensing in Industrial/Organizational Psychology and an attorney, has been recognized by the profession of Industrial/Organizational Psychology as "an authoritative source in designing personnel systems which emphasize legal fairness and legal defensibility." Dr. Morris is also a diplomat of the American Board of Psychological Specialties.

Our Washington, D.C. office (117, South St. Asaph Street, Alexandria VA 22314) will be the principal office servicing the Austin Fire Department project. Assistance and support will be provided by our office in New Orleans and by our Scoring Center in Jackson, MS.

INSURANCE

Morris & McDaniel holds the following insurance coverage. Upon award of the contract, Morris & McDaniel will agree to add the Austin Fire Department and Civil Service Commission as an Additional Insured and provide the City with a Certificate of Insurance.

| | |
|---------------------------|---|
| Auto Liability | - \$1,000,000 any one accident |
| General Liability | - \$1,000,000 per occurrence - \$2,000,000 general aggregate |
| Workers Compensation | Statutory: Virginia and Mississippi |
| Coverage A | |
| Employer's Liability | - \$1,000,000 each accident |
| Coverage B | - \$1,000,000 disease policy limit - \$1,000,000 each employee |
| Excess/Umbrella Liability | - \$2,000,000 each occurrence aggregate |
| Errors and Omissions | - \$1,000,000 each wrongful act - \$3,000,000 aggregate |

Identify all key persons, their title, and credentials who will be assigned to the City of Austin and include the information listed below. Do not include this information for all staff. Only include this information for staff directly assigned and supporting this contract.

- The number of clients they are responsible for
- Percentage of time they will be allocated to the City of Austin
- Office location
- Resumes
- Degree/Certifications/Licenses and number of years of experience in their role



PROJECT MANAGER AND STAFFING PLAN

Morris & McDaniel has assembled an outstanding project team to support the City of Austin Fire Department. The team is presented in the Organizational Chart below. In this section, we also provide preliminary descriptions of their expertise. Please refer to Appendix D for complete professional resumes on our staff.

Personnel Background and Qualifications

Morris & McDaniel has an experienced and highly qualified staff of professionals and support personnel to conduct our projects. In this section we highlight the background and experience of our key members who have participated in developing public safety entry-level assessment systems including written examinations, assessment centers, oral boards and structured interviews. As noted above, our firm's principals will be heavily involved in all project activities. We do not see any conflict of interest associated with directing/staffing the City of Austin Fire Department project.

Dr. David Morris, the President of Morris & McDaniel, will serve as overall Project Director/Principal Project Leader. Mr. Joe Nassar, Vice President, will serve as Project Coordinator and Mr. Roger McMillin, Vice President of Operations, will serve as Project Controller. Project personnel include Dr. Lana Whitlow, Dr. Jeff Rain, Mark Mincy, Kim Anderson, Judith Thompson, Molly McDonald, Mayra Prado, Elizabeth Wood, Glenna Guidry Allen, and Adam Lester. Our project staff is highly experienced in job analysis review and development procedures and structured oral test development and administration, as well as with using statistical computer programs to produce the reports required by this project.

In this section we list the names and qualifications, education and professional experience and who will be assigned to the Austin Entry-Level Fire Fighter Project. The matrix below presents each project team member by name, estimated project assignment percentage, number of clients, office location and project tasks. While we have a substantial number of clients over the course of the year, all of which experience hands-on management from the highest management levels, it is typical for upper level managers to concentrate on a limited number of projects at any one given time and to see that project completed or comfortably underway before redirecting their primary management efforts to another client jurisdiction.

Professional resumes are presented in Appendix B.



| Professional Staff | Percentage on project | Number of Clients | Office Location | Individual Tasks |
|---|-----------------------|-------------------|--|---|
| David M. Morris, Ph.D., J.D. Project Director and President | 26% | 5 | Washington, D.C. | <ul style="list-style-type: none"> - Responsible for overall design of the examination plan; specific design and quality of the Job Description linkages and test instruments used - Conduct Job Analysis and Transportability Study - Test instrument administration - Rater training - Monitoring scoring activities - Overseeing final reports - Providing legal assistance, as necessary |
| Joe F. Nassar, M.P.A. Project Coordinator and Vice President | 18% | 5 | Washington, D.C. | <ul style="list-style-type: none"> - Responsible for ensuring that project elements are performed in a timely manner and coordinated with the appropriate project contacts - Conduct Job Analysis and Transportability Study - Assisting with linkages and test component administrations - Rater training - Monitoring scoring activities |
| Roger H. McMillin, J.D. Project Controller and Vice President of Operations | 5% | 10 | Washington, D.C. | <ul style="list-style-type: none"> - Overseeing contractual and legal issues - Test components and their administrations - Monitoring scoring activities. |
| Lana Whitlow, Ph.D. Judith Thompson, M.Ed. Senior Staff Consultants | 5% | 10 | New Orleans, LA Jackson, MS | <ul style="list-style-type: none"> - Assisting with quality of test instruments |
| Jeffrey Rain, Ph.D. Mark Mincy, Ph.D. Senior Staff Consultants | 18% | 10 | Remote from Rockledge, FL Remote from Memphis, TN | <ul style="list-style-type: none"> - Designing the logistics of the test components, i.e., the sequence and timing of candidate and rater events - Conduct Job Analysis and Transportability Study - Overseeing development of job description linkages and test instruments - Test components administrations, and conducting all statistical analyses - Compilation and maintaining data for validation report |
| Kimberly Anderson, M.S. Senior Staff Consultant | 18% | 10 | Jackson, MS | <ul style="list-style-type: none"> - Reviews and Finalization of linkages and testing components - Conduct Job Analysis and Transportability Study |
| Molly McDonald, B.A. Mayra Prado, M.S. Elizabeth Wood, B.A. Glenna Guidry Allen, B.A. Staff Consultants | 10% | | | <ul style="list-style-type: none"> - Reviews with SMEs and incorporating changes - Development and/or administration of all test components - Score reporting; and final reports |



DAVID M. MORRIS, PH.D., J.D.

Dr. David M. Morris, President of Morris & McDaniel, Inc., has his Doctor of Philosophy in Psychology, with licensing in Industrial/Organizational (I/O) Psychology, and his Juris Doctorate. Dr. Morris has held academic position and has taught courses in industrial and related areas of psychology. He has conducted psychological testing research for both public and private sector clients for over three decades. He has pioneered the development and use of innovative techniques and alternatives to traditional paper and pencil tests.

Dr. Morris' dual career as an I/O psychologist and attorney gives him a unique perception of Title VII and the development of personnel procedures. There are probably fewer than ten persons in the country licensed to practice both I/O psychology and law. His forte is building legal defensibility into the design of the personnel system.

In January 2015, Dr. Morris was asked to assist the World's newest democracy, South Sudan, in strengthening their police. South Sudan National Police Service (SSNPS) requested our assistance knowing that a stronger police was essential to strengthen their internal security. Dr. Morris and Tom Fuentes, VP of International Affairs, went to South Sudan and provided the newest scientific procedures to improve the selection and vetting of candidates for police officers for the South Sudan National Police Service (SSNPS). They assisted in screening and vetting all candidates for police officers.

In 2007, Dr. Morris completed a project in Baghdad, Iraq, where he led a team at the Baghdad Police Academy, which implemented a screening test for potential candidates for the Iraqi Police Service (IPS). Dr. Morris developed and translated the American version of a highly successful entry-level police test into Arabic. This test is the National Police Test and tested over 70,000 Iraqi civilians. Successful test candidates enter the Police Academy for training.

In 1986, Dr. Morris was invited to give the annual Division 14 APA Seminar on the relationship of personnel selection and the law. Presenters of such seminars are by invitation only, and an invitation to conduct such training indicates the Society of Industrial/Organizational Psychology recognizes these individuals as having exceptional credentials in this area. The title of Dr. Morris' seminar was "Building EEO Legal Defensibility into Selection and Assessment Procedures."



Dr. Morris has served as Project Director for assessment centers used in the public as well as private sectors. These projects involved conducting job analyses and developing and administering written tests, assessment centers, oral boards, tactical exercises and structured interviews. Dr. Morris documented the required linkages to the job analysis results including appropriate weighting of performance dimensions. In many instances, because of the large number of candidates, innovations were used which included video-based situational exercises, multiple-choice formatted management exercises, and sometimes extensive use of video recordings to ease the administrative burdens associated with the use of assessors and large numbers of candidates.

Since 1976, Dr. Morris, as principal of the firm, has an extensive background in the development and administration of written test and performance-based assessment center procedures, assessor training sessions which includes monitoring of the scoring process, candidate orientation training sessions, Angoff procedures for setting cut-scores, developing and conducting a 2nd Review Process (Appeal/Review) by test candidates, serving as an arbitrator for protective services, and expert witness research and testimony.

Dr. Morris is a member of many professional associations including the **American Psychological Association, Division 14 of APA, the International Public Management Association – Human Resources, the IPMA Assessment Council, the American Bar Association, and the American College of Forensic Psychology.**

He has delivered training programs on "How to Conduct a Job Analysis," "Avoiding EEO Litigation," "EEO Defense," "Performance Appraisals," and "Professional Designs and Legal Aspects of Performance Appraisals." He has made numerous presentations at professional conferences, including such topics as "EEO Guidelines and Psychological Testimony" and "Getting the EEO Lightning Rods Out of Your Personnel Practices." In 1987, Dr. Morris was selected by Management Europe (the European affiliate of the American Management Association) to present innovations in management assessment techniques at their annual personnel convention in Brussels, Belgium. The American Management Association asked Dr. Morris to give a presentation on personnel selection and the law at their 61st annual conference in April 1990, in San Francisco. He was also invited to present a paper at the International Congress on Assessment Centers in Toronto in May of 1991 as well as in London, England in September 2006. Dr. Morris has been an invited speaker to the International Chiefs of Police (IACP) Conference on several occasions since 1986.

Dr. Morris founded the firm of Morris & McDaniel, Inc. and has been with the firm for over forty-three (43) years.



JOSEPH F. NASSAR, M.P.A.

Joseph F. Nassar, Vice President of Operations and Senior Staff Consultant of Morris & McDaniel, Inc., holds a Master of Public Administration and a Bachelor of Science in Criminal Justice and has completed course work toward his Ph.D. in Public Policy and Administration. Mr. Nassar has served as Assistant Project Director and Senior Staff Consultant on public and private sector projects. His professional work experience includes job analysis, job evaluation, job evaluation audits and interviews, development and administration of valid written knowledge tests (entry-level selection and promotional) and performance-based exercises for use in assessment center and oral board procedures, organizational/management analysis, and development and administration of training programs. Mr. Nassar has also conducted candidate orientation sessions for test candidates and worked with Subject Matter Experts (SMEs) in written test and performance-based assessment exercise development and editing for content and correct of test question or assessment exercises, written test and performance-based assessment administration, rater training, monitoring of the scoring process by raters, and conducting a 2nd Review Process (Appeal/Review) by test candidates.

Mr. Nassar's professional experience in entry-level selection and promotional assessment procedures (job analysis, performance-based exercise development, administration, scoring, and monitoring) for jurisdictions and organizations, such as: Boston Police Department (written knowledge tests for the ranks of Captain, Lieutenant, Sergeant and Detective and assessment centers for the ranks of Captain, Lieutenant and Sergeant); San Antonio Police Department (written knowledge tests for the ranks of Captain, Lieutenant, Sergeant and Detective-Investigator and performance-based exercises for the ranks of Captain and Lieutenant); Massachusetts State Police (written knowledge tests and performance-based exercises for the ranks of Captain, Lieutenant and Sergeant); Norfolk Police Department (written knowledge tests for the ranks of Captain, Lieutenant, Sergeant and Corporal, and assessment centers for the ranks of Captain, Lieutenant, and Sergeant); U.S. Secret Service (assessment center process for the rank of Captain); Palm Beach County Sheriff's Department (written tests and assessment centers for the Law Enforcement and Correction ranks of Lieutenant and Sergeant); Philadelphia Police Department (written knowledge tests and structured oral board for entry-level police recruit candidates); Jacksonville Sheriff's Department (written tests and assessment centers for the ranks of Lieutenant and Sergeant); Kansas City Fire Department (written knowledge tests for the ranks of Battalion Fire Chief, Captain, Lieutenant, and Fire Apparatus Operator, assessment center for the rank of Battalion Fire Chief, and structured oral board for entry-level firefighter recruit candidates); Norfolk Fire Department (written tests and assessment centers for the ranks of



Battalion Fire Chief, Fire Captain, and Fire Lieutenant); Akron Fire Department (assessment centers for the ranks of Captain and Lieutenant and entry-level firefighter recruit candidates).

Mr. Nassar has been with the firm of Morris & McDaniel, Inc. for over forty-two (42) years.

ROGER H. MCMILLIN, JR., J.D.

Judge McMillin recently retired from his position as Chief Judge of the Court of Appeals of the State of Mississippi. Judge McMillin served on the Court of Appeals from 1995 until his retirement in April 2004. He served as Chief Judge for three fourths of his tenure on the Court. Judge McMillin joined the firm of Morris & McDaniel in May 2004 as General Counsel and Vice President for Operations.

Since September 2004, Judge McMillin has spent the majority of his time on the ground in Baghdad, Iraq, where he heads a team at the Baghdad Police Academy, which implemented a screening test for potential candidates for the Iraqi Police Service (IPS). Morris & McDaniel developed and translated the American version of its highly successful tests into Arabic and submitted the translated version to a panel of experts to verify translation accuracy and to probe the tests for cultural or social concerns that had to be addressed before the test was administered. To date, over 10,000 Iraqi civilians have been tested using our firm's test instrument. Successful test candidates enter the Police Academy for training.

As Chief Judge of the Court of Appeals, Judge McMillin gained invaluable experience in administering large and complex operations where the timely achievements of were critical to the success of the organization. As chief operations officer for the Police Screening Project, Judge McMillin will be able to utilize his administrative skills to see that the various aspects of the project remain on track and that all critical deadlines are met.

LANA PRUDHOMME WHITLOW, PH.D.

Dr. Whitlow, Vice-President and Lead Psychometrician, holds a Doctor of Philosophy in Psychology from Southern California University for Professional Studies. She obtained a Master of Science degree in Counseling Psychology, with concentration in psychometrics, from the University of Southern Mississippi and received her Bachelor of Science degree in Psychology at Louisiana State University. While at LSU, Dr. Whitlow assisted senior professors in research, data collection and statistics. Her graduate work included an assistantship to a tenured professor requiring undergraduate teaching, research for the Department of Psychology chairman, data analysis as well as psychometrics. Dr. Whitlow's doctoral dissertation was an original study of the application of an independent work ethic dimension to the success rate



within law enforcement personnel. She holds membership in the Academic Honor Societies of Gamma Beta Phi and Psi Chi and is a professional member of American Psychological Association and Louisiana Psychological Association.

Dr. Whitlow's responsibilities for Morris & McDaniel, Inc., are diverse. While she heads the Marketing Division, Dr. Whitlow also conducts all psychological screening of police applicants for our clients in the Greater New Orleans area as well as all executive management assessments for our private New Orleans area clientele. Dr. Whitlow has extensive experience in interviewing and testing and has served as an expert witness for law enforcement testing for selection.

Prior to joining Morris & McDaniel, Inc., Dr. Whitlow held the position as primary psychometrician for two psychological practices as well as neuropsychological rater for several New Orleans hospitals.

Dr. Whitlow has been with Morris & McDaniel, Inc., since 1990.

JEFFREY S. RAIN, PH.D.

Dr. Rain has worked with Morris & McDaniel for over 25 years including several testing projects for numerous protective services. He has extensive experience conducting job analysis, implementing assessments, validating selection procedures, and developing methods to reduce adverse impact. He has conducted job analysis for over 15 years for many protective services. Dr. Rain received his undergraduate degree in Psychology from The Citadel, Charleston, South Carolina, and his PH. D in Industrial/Organizational Psychology from Louisiana State University.

MARK D. MINCY, PH.D.

Mr. Mark Mincy, Senior Staff Consultant of Morris & McDaniel, Inc., has PhD in Industrial/Organizational Psychology from the University of Southern Mississippi, a master's degree in Industrial/Organizational (I/O) Psychology from the University of Arkansas at Little Rock and he holds a Bachelor of Science degree in Psychology with a minor in General Science from the University of Central Arkansas. He holds memberships in the Society for Industrial and Organizational Psychology, American Society for Training and Development, International Society for Performance Improvement, American Psychological Association, Society for Human Resource Management, Psi Chi - (National Honor Society in Psychology), and the Deming Institute for Quality.

Prior to joining Morris & McDaniel, Inc., Mr. Mincy worked as a Consultant for the Center for Applied Organizational Studies where he assisted in the development of a person-organization



fit instrument to be used in employee selection, conducted various job analyses, developed, analyzed, and made improvements to administrative as well as developmental performance appraisal systems (360-degree feedback system), developed, conducted, statistically analyzed, and presented results from organizational surveys for organizations ranging in size from 10 to 10,000 employees. He also assisted in the development of several training programs in both the public and private sector.

While at USM and UALR, Mr. Mincy assisted senior professors in research and data collection. His graduate work included teaching undergraduate courses such as Statistics, Ethics, and Introductory Psychology. In addition, it included diverse research projects involving employee attitude surveys, personality studies, and developing various survey instruments.

Since joining he has become involved with developing competency models, the development of employee selection for tests for use in China, and the development and validation of various entry-level tests and performance-based assessment exercises for such jurisdictions as the Kansas City Fire Department, Boston Police Department, Palm Beach Sheriff's Office, Jacksonville Sheriff's Office, and the City of Norfolk, Virginia. Mr. Mincy has considerable experience conducting candidate orientation sessions, working with the SMEs in the development and review of written test and performance-based exercises, written test and performance-based assessment administration, conducting rater training and monitoring of the scoring process by raters, and conducting a 2nd Review Process (Appeal/Review) by test candidates. Mr. Mincy has been with Morris and McDaniel since 2002.

KIMBERLY N. ANDERSON, M.S.

Kimberly Anderson, Staff Consultant of Morris & McDaniel, Inc., holds a master's degree in Counseling Psychology with an emphasis in Psychometrics, and a Bachelor of Arts degree in Journalism with an emphasis in Public Relations and minors in English and Psychology.

Ms. Anderson served as the project manager for the Mississippi State Personnel Board Project. This project consists of working with all state agencies to develop competency models and update job descriptions for ADA and EEOC compliance.

In addition, Ms. Anderson participates in the job analysis and written test and exercise development for both police and fire service assessment centers. Ms. Anderson has administered written test and performance-based assessment exercise for police, fire, sheriff, and correction organizations, conducted rater training, and monitored scoring procedures by raters. Over the past few years, she has worked with clients such as Kansas City, Missouri Fire Department, the State of New Jersey, Memphis Fire Department, Norfolk Fire Department, Metropolitan Nashville



Police Department, San Antonio Police Department, Jacksonville Police Department, and the Palm Beach County Sheriff's Department.

Ms. Anderson has also served in a training capacity for our private sector clients. Currently, she participates in Morris & McDaniel's International Police Assessment Screening Committee (I.P.A.S.). The mission of the committee is to seek out and identify contacts in likely markets for our police testing services that have been successfully used by the Iraqi Police Service.

While at Morris & McDaniel, Inc., Ms. Anderson has participated in other special projects such as organizational and validation studies.

Ms. Anderson has been with Morris & McDaniel, Inc., since 2000.

JUDITH THOMPSON, M.ED.

Judith Thompson, Senior Staff Consultant and Licensed Psychometrist holds a Masters of Education in Psychometry and a Bachelor of Science degree in Elementary Education with areas of concentration in Diagnostic Reading and Fine Arts. Ms. Thompson has done educational testing and consulting and has taught courses in related areas of psychology. She holds membership in the National Association of Psychometrists.

While at Morris & McDaniel, Ms. Thompson has worked with numerous police departments, fire departments, sheriff's offices, correctional facilities, state departments, as well as private sector clients. Ms. Thompson has participated in all phases of test and exercise development for both entry-level and promotional processes, including job analysis; test and exercise construction, review, and administration; assessor training and scoring of assessment center exercises; and validation and technical report writing for clients.

Ms. Thompson has participated in a Validation Study for the San Antonio Police Department; job analysis study development and validation of written test and assessment exercises for the ranks of Battalion Chief, Captain and Lieutenant for the Kansas City, Missouri, Fire Department; Law Enforcement and Correction Lieutenant and Sergeant for the Palm Beach County Sheriff's Office; Sergeant and Captain for the United States Park Police; Detective, Captain, Lieutenant for the San Antonio Police Department; Fire Battalion Chief, Captain, and Lieutenant for the Norfolk Fire Department; and various other clients. Ms. Thompson has also participated in a number of organizational studies including clients such as Mississippi Department of Human Services and San Antonio Police Department. Ms. Thompson also conducts statistical analyses of data, and writes technical reports for clients. Ms. Thompson also



conducts psychological evaluations for the Jackson, MS Airport Authority, Bastrop, Louisiana Police Department, and Memphis Fire and Police Departments.

Ms. Thompson has been with Morris & McDaniel, Inc., since 2000.

MOLLY C. MCDONALD, B.A.

Molly McDonald, Personnel Analyst of Morris & McDaniel, Inc., holds a Bachelor of Arts degree in Political Science with a minor in English.

Ms. McDonald serves as assistant project manager of the Mississippi State Personnel Board Quality Workforce Initiative Project. This project involves working with all state agencies to develop competency models and update job descriptions for ADA and EEOC compliance.

While at Morris & McDaniel, Inc., Ms. McDonald has participated in the areas of job analysis, validity, and competency development. Ms. McDonald has also participated in the development, administration, and scoring of written knowledge-based tests and assessment centers for various police and fire departments. In the past, she has worked with clients such as Winston-Salem Police Department, Kansas City Missouri Fire Department, Memphis Fire Department, Palm Beach County Fire-Rescue and Sheriff's Office, Metropolitan Nashville Police Department, and Tucson Police Department.

Ms. McDonald has been with Morris & McDaniel, Inc. since 2003.

MAYRA PRADO, M.S.

Mayra Prado, Staff Consultant of Morris & McDaniel, Inc., holds a Master of Science degree in Psychology with an emphasis in Industrial and Organizational Psychology. She also has a Bachelor of Science degree in Accounting with a minor in Business.

While at Morris & McDaniel, Inc., Ms. Prado has participated in the review of testing instruments and development and scoring of performance-based assessment exercises and written knowledge-based tests for police and fire organizations. In addition, Ms. Prado has conducted numerous job analyses and participated in administration and scoring of assessment centers for various police and fire departments. Ms. Prado has also supervised scoring procedures such as compiling and verifying data, creating feedback reports and final lists for several police and fire departments. In the past, she has worked with clients such as Rochester Fire Department, Houston Fire Department, Memphis Fire Department, Jackson Fire Department, Norfolk Police and Fire Departments, Newport News Police and Fire Departments, New Haven Fire Department, Pennsylvania State Police, Richmond Police Department, Maryland-National



Capital Park Police, Jefferson Parish Sheriff's Office, Austin Police Department, San Antonio Police Department, and Jackson Police Department.

While at Morris & McDaniel, Inc. Ms. Prado has participated in other special projects such as an organizational study for a large Department.

Ms. Prado has been with Morris & McDaniel, Inc., since 2009.

ELIZABETH WOOD, B.A.

Elizabeth Wood, Staff Consultant of Morris & McDaniel holds a Bachelor of Arts degree in Biology with a dual Bachelor of Arts degree in Psychology.

While at Morris & McDaniel Ms. Wood has participated in the areas of job analysis, validity, and competency development. Ms. Wood has also participated in the development and administration of written knowledge-based tests for police and fire organizations across the country. In addition, she has taken part in the development and administration of performance-based assessments for various police and fire departments. Recently she has worked with clients such as Jackson Fire Department, Orange County Fire Rescue Department, Houston Fire Department, and the Mississippi Highway Patrol.

Ms. Wood has been with Morris & McDaniel since 2010.

GLENNA S. GUIDRY ALLEN, M.S., M.Ed.

Glenna Guidry Allen, Staff Consultant of Morris & McDaniel, Inc., holds a Master of Education in Counseling & Personnel Services, and Master of Science in Sports Administration with a concentration in Sports Psychology and a Bachelor of Science degree in Psychology. She holds memberships in Association for Talent Development and Mississippi Chapter Association of Talent Development.

While at Morris and McDaniel, Inc., Ms. Guidry Allen has worked with various law enforcement and fire service clients reviewing and conducting job analyses, and in multiple phases for the development of written multiple-choice tests and assessment center exercises.

Ms. Guidry Allen has been with Morris & McDaniel, Inc. since 2014.

ADAM LESTER

Mr. Adam Lester, Information Technology Director, leads IT strategic and operational planning to achieve business goals by fostering innovation, prioritizing IT initiatives and coordinating the evaluation, deployment and management of current and future IT systems across our organization. He also specializes in information systems security and provides proper



safeguarding of classified and sensitive information and equipment. His expertise also includes web development and database management.

Prior to joining Morris & McDaniel, Mr. Adam Lester worked in conjunction with the U.S. Department of Homeland Security to secure the McCoy Federal Building, U.S. Federal Courthouse and several Internal Revenue Service and Social Security Administration offices located across Mississippi. He assisted in the implementation of technology and security improvements to one of the Defense Department's most powerful supercomputer centers, located at Stennis Space Center, Mississippi. Also, at Stennis Space Center, he worked with NASA to upgrade fiber-optic infrastructure to connect a server farm to other southeastern locations such as Keesler Air Force base. He worked with the Naval Meteorology and Oceanography Command to provide technology and security improvements to the NAVOCEANO War fighting support center as well.

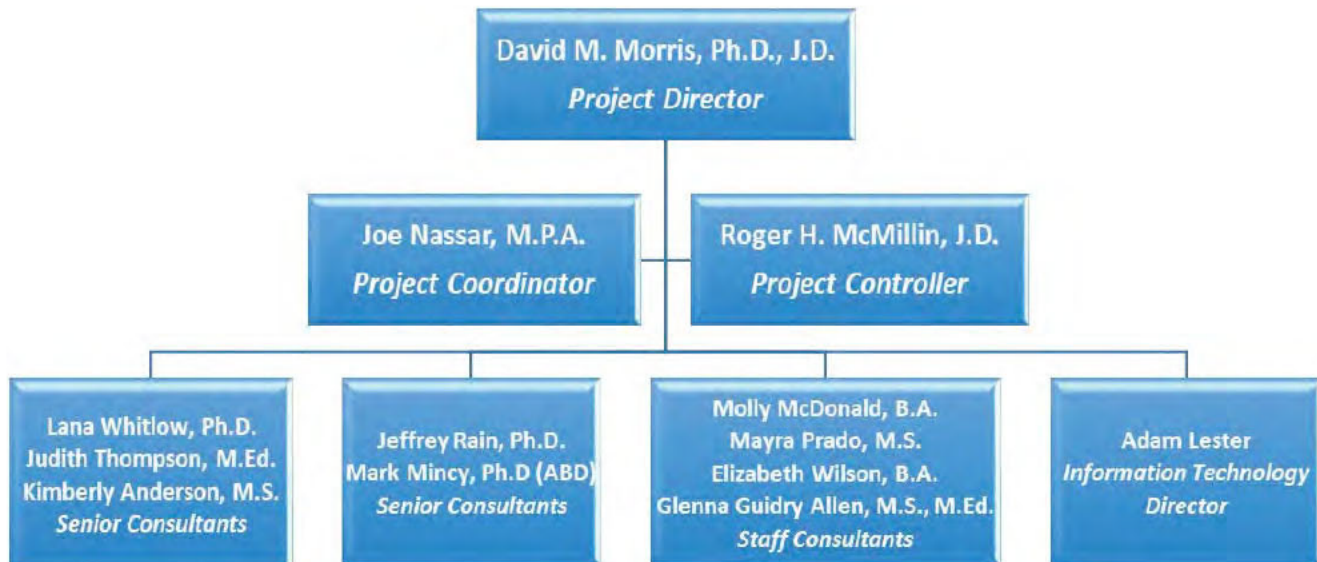
In late 2000, Mr. Lester assisted in the re-engineering of MCI WorldCom's data network. This consisted of various technology improvements and additions to their headquarters located in Clinton, MS.

Mr. Lester managed a project to upgrade voice and data systems for the City of Jackson Emergency Communications Center and also made vast improvements to the data network of The City of Oxford. The City of Oxford project drastically improved communications between City hall, the Fire Department, the Police Department, and Public Works.

Over his 13 years of experience, Mr. Lester has also provided consulting, design, project management, and support services to large corporations including Eaton Aerospace, Nissan, Dell, Wal-Mart, and Target.



Project Organization Chart



Based on the information listed in Tab 3, References, for each municipal fire departments for which you have provided fire department entry exams during the past ten years, provide:

- a. What selection procedures were used?
- b. How were the selection procedures scored?
 - i. Pass/fail or compensatory? If compensatory, provide the weights of each selection procedure.
 - ii. Is the selection of the final candidate done from a rank order list, banding, or another method?
 - iii. Are the scores normalized?
 - iv. What was the weight of the cognitive component used? Which cognitive ability components are measured in the cognitive test?
 - v. Was an oral interview utilized? What was the weight of the interview component? What ability components were measure?
- c. If a structured oral interview or oral board was conducted, please go into detail on evaluator training. How was the oral conducted? Was it video or audio only? How many candidates were interviewed and how long did it take? If no structured oral interviews or oral boards, please explain why.
- d. If you use biodata, provide a sample of your biodata items. How were they developed? How were they validated?
- e. What was the validity and adverse impact for each test battery?
 - i. For validity, provide criterion-related validity evidence to support or justify the use of the specified assessments. Claims of criterion-related validity should be supported by the provision of a validity coefficient and the requisite information and data (e.g., sample size, sample type [applicant



vs incumbent], criteria and source, corrections if any, and of what type, etc.) that went into the generation of the specified coefficients.

ii. For adverse impact, provide empirically based evidence to support statements pertaining to subgroup differences and adverse impact reduction or elimination. Thus, for subgroup differences, it is expected that information pertaining to the standardized mean differences (d) will be provided. It is expected that similar information will be provided for adverse impact as well. This would include the prototypical adverse impact statistics such as the 80% rule (adverse impact ratio), z-test, chi-square test, Fisher Exact test, and Zir, and the cut-points on which these analyses are based. The magnitude of these differences should also be interpreted in the context of what is commonly reported in the extant literature for the focal and/or similar constructs. **We are especially interested in adverse impact statistics for the top 150 candidates on the final eligibility list.**

f. How would you administer a computer or written exam at the same time, in a single setting?

g. What will you do to ensure requests for information from the City and/or any other government entity are met in a timely manner?

Austin Fire Department 2015

Based on the information listed in Tab 3, References, for each municipal fire departments for which you have provided fire department entry exams during the past ten years, provide:

a. What selection procedures were used?

A Cognitive, Non-Cognitive, and Structured Oral component were used.

b. How were the selection procedures scored?

i. Pass/fail or compensatory? If compensatory, provide the weights of each selection procedure.

Cognitive, Non-Cognitive, and Structured Oral component components were combined to form a composite score which follows a compensatory scoring model. Final score lists were rank ordered based on the composite score. The weights varied across hiring cycles, but in all cases the Cognitive component was weighted 20% of the total composite score. For example, past weights were 20% Cognitive, 65% Oral, and 15% Non-Cognitive.

ii. Is the selection of the final candidate done from a rank order list, banding, or another method?

Preference points (e.g., veterans) were added to the composite score. The total of the preference points plus composite score was rank ordered. The rank ordered composite score list was used to determine the candidate who moved forward to a pre-hire screening phase conducted by Human Resources.

To clarify, we interpret "final candidate" as meaning the rank-ordered list that determined a candidate's eligibility to proceed from the assessment phase to the next hiring phase. That list



was not used to make a final hiring decision because candidates had to successfully completed other conditions, post-assessment.

iii. Are the scores normalized?

Since 2015 component scores were normalized prior to creating the composite score.

iv. What was the weight of the cognitive component used? Which cognitive ability components are measured in the cognitive test?

A Cognitive component, weighted 20% of the total composite score, was used. The cognitive ability components measured are listed in our response to Section 3.2.2

v. Was an oral interview utilized? What was the weight of the interview component? What ability components were measure?

A Structured Oral component was used. Depending on the hiring cycle, it was weighted from 65% to 80% of the total composite score.

c. If a structured oral interview or oral board was conducted, please go into detail on evaluator training. How was the oral conducted? Was it video or audio only? How many candidates were interviewed and how long did it take? If no structured oral interviews or oral boards, please explain why.

An assessor training program was provided to all assessors prior to the scoring of the Structured Oral component. Morris & McDaniel staff conducted the training session which lasted one to one and one half days.

The assessor syllabus served as the major training text and covered the following topics:

- Introduction
- Outline of the Assessor Training
- Agenda for Assessors
- Assessors' Reactions to Performance-Based Assessment (Assessment Centers)
- History of Performance-Based Assessment
- Performance-Based Assessment Principles
- Performance-Based Assessment Procedure
- Performance-Based Assessment Dimensions
- Performance-Based Assessment Exercises
- Dimension by Exercise Matrix
- Rating Behavior
- Behavioral Observation and Recording
- Use of Assessor Report Forms
- Recognizing and Classifying Behavior by Dimensions
- Behavior Examples Exercise
- Behavior by Dimensions Exercise
- Evaluating Behavior by Dimensions
- Behavior Classification Exercise
- Mock Performance-Based Assessment: Practice on the Actual Exercises
- Ethics of Performance-Based Assessment Operations
- Individual Assessor Rating Forms



The above training utilizes a frame-of-reference approach. During the training, assessors participated in specially designed exercises to hone their assessment skills. The job description for the targeted position was provided to all assessors and was reviewed by the assessors.

How was the oral conducted?

Morris & McDaniel administered a structured oral process to entry level candidates. The administration occurred in a school where we were able to make use of the individual classrooms, auditorium, cafeteria, and gymnasium.

Candidates were scheduled in groups and participated in a brief candidate orientation before being individually escorted into classrooms to give his/her responses to 3 scenarios. The scenarios were read to the candidate and each also had a paper copy to refer to while responding.

Last process, three versions were used over 1 ½ days.

Was it video or audio only?

The candidate responses were video recorded.

How many candidates were interviewed and how long did it take?

2013 – 2010 candidates – 2.5 days

2015 – 1676 candidates – 2 days

2017 – 1158 candidates – 1.5 days

2019 – 1576 candidates – 2 days

- d. If you use biodata, provide a sample of your biodata items. How were they developed? How were they validated?

A biodata assessment was not used.

- e. What was the validity and adverse impact for each test battery?

- i. For validity, provide criterion-related validity evidence to support or justify the use of the specified assessments. Claims of criterion-related validity should be supported by the provision of a validity coefficient and the requisite information and data (e.g., sample size, sample type [applicant vs incumbent], criteria and source, corrections if any, and of what type, etc.) that went into the generation of the specified coefficients.

Evidence for the criterion-related validity is presented in the attached criterion-related validity report. For convenience of review, we present a sample of the criterion-related validity for select criteria. Applicants comprised the sample in each instance.



Summary of Criterion-related Validation Study Results

| Agency / Position | Total Tested population | Total Validation Sample Size | Criterion measures used (sample size) | Uncorrected Validity Coefficient (r_{xy}) Composite Predictor Score |
|-------------------------------|-------------------------|------------------------------|--|--|
| AFD / Entry-level Firefighter | 1,676 | 93 | Fire Academy Composite Score (n = 93) | .37 ** |
| | | | Agency's Probationary Firefighter Evaluation (n = 83) | .22 * |
| | | | Morris & McDaniel's Performance Observation Score (n = 34) | .35 * |

Asterisks indicate statistically significant results, * $p < .05$ and ** $p < .01$.

ii. For adverse impact, provide empirically based evidence to support statements pertaining to subgroup differences and adverse impact reduction or elimination. Thus, for subgroup differences, it is expected that information pertaining to the standardized mean differences (d) will be provided. It is expected that similar information will be provided for adverse impact as well. This would include the prototypical adverse impact statistics such as the 80% rule (adverse impact ratio), z-test, chi-square test, Fisher Exact test, and Zir, and the cut-points on which these analyses are based. The magnitude of these differences should also be interpreted in the context of what is commonly reported in the extant literature for the focal and/or similar constructs. **We are especially interested in adverse impact statistics for the top 150 candidates on the final eligibility list.**

Adverse impact reductions are described in Section 3.1.3.3. Standardized mean differences (SMD) pertaining to those reductions are presented in the following table. SMD results are based on Cohen's d statistic.

Standardized Mean Differences (Cohen's d) for Composite Score by Race, Ethnicity, and Sex.

| Groups compared | Sample Sizes | SMD (Cohen's d) |
|--------------------------|--------------|--------------------|
| Asian / White | 26 / 639 | -.59 |
| African American / White | 208 / 639 | -.23 |
| Hispanic / White | 626 / 639 | -.17 |
| Female / Male | 166 / 1475 | .09 |



Adverse impact results, in this case 80% Rule and the Two Standard Deviation test (2 SD, aka Z_D) are presented as implemented for this data sample using the top 150 scoring candidates (note: the actual sample size was 153 due to tie scores).

Adverse Impact Comparison

| Group | 80% Rule | 2 SD Tests |
|---------------------------------|----------|------------|
| Asian / White | 87.8% | -.19 |
| African American / White | 109.7% | .37 |
| Hispanic / White | 91.0% | .98 |
| Female / Male | 86.8% | -.51 |

Note: 4/5ths values less than .80 or 2 SD values greater 1.96 are considered evidence of adverse impact. For sake of consistency, results are presented with Whites forming the comparator group. Whereas African Americans had a pass rate (9.6%) compared to Whites (8.8%), the interpretation of the above results remains the same.

f. How would you administer a computer or written exam at the same time, in a single setting?

Traditionally, the easiest way to administer a written exam where all candidates take the exam in a single setting is through a paper and pencil administration. Depending on the venue and the number of candidates, all candidates could be administered the same exam simultaneously. In light of the Covid-19 pandemic, numerous rooms with a smaller number of candidates in each would be more of a reasonable plan. Morris & McDaniel has parallel versions of the written exam so the examination could be scheduled in up to three settings without an issue with security.

If Morris & McDaniel were to administer the written exam via a computerized administration, we would recommend testing candidates through a continuous recruitment process. Coupled with the structured oral process, candidates could take the written exam and the oral component in one setting. By combining both components, we could offer numerous versions, and each would be administered randomly to each candidate.

g. What will you do to ensure requests for information from the City and/or any other government entity are met in a timely manner?

Morris & McDaniel makes it a priority to establish and maintain strong professional relationships with our clients. We will designate a liaison for direct communication with the City or any other government entity. This liaison will ensure that all requests for information are sent to the correct member of the staff based on the expertise needed and will monitor a timely response back to the client. We also recommend the establishment of frequent team meeting with our staff and clients if needed to discuss updates and logistical needs.



MIDWESTERN

Based on the information listed in Tab 3, References, for each municipal fire departments for which you have provided fire department entry exams during the past ten years, provide:

a. What selection procedures were used?

A Cognitive, Non-Cognitive, and Structured Oral component were used.

b. How were the selection procedures scored?

i. Pass/fail or compensatory? If compensatory, provide the weights of each selection procedure.

Cognitive, Non-Cognitive, and Structured Oral component components were combined to form a composite score which follows a compensatory scoring model. Final score lists were rank ordered based on the composite score. The written test is combination of Cognitive and Non-cognitive components and account 30%, with the Structured oral counting 70%.

ii. Is the selection of the final candidate done from a rank order list, banding, or another method?

Preference points (e.g., veterans) were added to the composite score. The total of the preference points plus composite score was rank ordered. The rank ordered composite score list was used to determine the candidate who moved forward to a pre-hire screening phase conducted by Human Resources.

To clarify, we interpret "final candidate" as meaning the rank-ordered list that determined a candidate's eligibility to proceed from the assessment phase to the next hiring phase. That list was not used to make a final hiring decision because candidates had to successfully completed other conditions, post-assessment.

iii. Are the scores normalized?

Scores were not normalized.

iv. What was the weight of the cognitive component used? Which cognitive ability components are measured in the cognitive test?

The written test is combination of the Cognitive and Non-cognitive components and account 30%, with the Structured oral counting 70%.

The cognitive ability components measured are listed in our response to Section 3.2.2.

v. Was an oral interview utilized? What was the weight of the interview component? What ability components were measure?

A Structured Oral component was used. Depending on the hiring cycle, it was weighted from 70% of the total composite score.

c. If a structured oral interview or oral board was conducted, please go into detail on evaluator training. How was the oral conducted? Was it video or audio only? How



many candidates were interviewed and how long did it take? If no structured oral interviews or oral boards, please explain why.

An assessor training program was provided to all assessors prior to the scoring of the Structured Oral component. Morris & McDaniel staff conducted the training session which lasted one to one and one half days.

The assessor syllabus served as the major training text and covered the following topics:

- Introduction
- Outline of the Assessor Training
- Agenda for Assessors
- Assessors' Reactions to Performance-Based Assessment (Assessment Centers)
- History of Performance-Based Assessment
- Performance-Based Assessment Principles
- Performance-Based Assessment Procedure
- Performance-Based Assessment Dimensions
- Performance-Based Assessment Exercises
- Dimension by Exercise Matrix
- Rating Behavior
- Behavioral Observation and Recording
- Use of Assessor Report Forms
- Recognizing and Classifying Behavior by Dimensions
- Behavior Examples Exercise
- Behavior by Dimensions Exercise
- Evaluating Behavior by Dimensions
- Behavior Classification Exercise
- Mock Performance-Based Assessment: Practice on the Actual Exercises
- Ethics of Performance-Based Assessment Operations
- Individual Assessor Rating Forms

The above training utilizes a frame-of-reference approach. During the training, assessors participated in specially designed exercises to hone their assessment skills. The job description for the targeted position was provided to all assessors and was reviewed by the assessors.

[How was the oral conducted?](#)

Morris & McDaniel administered a structured oral process to entry level candidates. The administration occurred in a school where we were able to make use of the individual classrooms, auditorium, cafeteria, and gymnasium.

Candidates were scheduled in groups and participated in a brief candidate orientation before being individually escorted into classrooms to give his/her responses to 3 scenarios. The scenarios were read to the candidate and each also had a paper copy to refer to while responding.

Traditionally, three versions were used over 1 ½ days.

[Was it video or audio only?](#)

The candidate responses were video recorded.



How many candidates were interviewed and how long did it take?

2011 – 611 – 1 ½ days

2013 – 447 – 1 ½ days

2015 – 422 – 1 ½ days

2017 – 344 – 1 ½ days

2019 - 357 – 1 ½ days

d. If you use biodata, provide a sample of your biodata items. How were they developed? How were they validated?

A biodata assessment was not used.

e. What was the validity and adverse impact for each test battery?

i. For validity, provide criterion-related validity evidence to support or justify the use of the specified assessments. Claims of criterion-related validity should be supported by the provision of a validity coefficient and the requisite information and data (e.g., sample size, sample type [applicant vs incumbent], criteria and source, corrections if any, and of what type, etc.) that went into the generation of the specified coefficients.

Evidence for the criterion-related validity is presented in the attached criterion-related validity report. For convenience of review, we present a sample of the criterion-related validity for select criteria. Applicants comprised the sample in each instance.

Summary of Criterion-related Validation Study Results

| Agency / Position | Total Tested population | Total Validation Sample Size | Criterion measures used (sample size) | Uncorrected Validity Coefficient (r_{xy}) Composite Predictor Score |
|-------------------------------|-------------------------|------------------------------|--|--|
| AFD / Entry-level Firefighter | 1,676 | 93 | Fire Academy Composite Score (n = 93) | .37 ** |
| | | | Agency's Probationary Firefighter Evaluation (n = 83) | .22 * |
| | | | Morris & McDaniel's Performance Observation Score (n = 34) | .35 * |

Asterisks indicate statistically significant results, * $p < .05$ and ** $p < .01$.

ii. For adverse impact, provide empirically based evidence to support statements pertaining to subgroup differences and adverse impact reduction or elimination. Thus, for subgroup differences, it is expected that information pertaining to the standardized mean differences (d) will be provided. It is expected that similar information will be provided for adverse impact as well.



This would include the prototypical adverse impact statistics such as the 80% rule (adverse impact ratio), z-test, chi-square test, Fisher Exact test, and Zir, and the cut-points on which these analyses are based. The magnitude of these differences should also be interpreted in the context of what is commonly reported in the extant literature for the focal and/or similar constructs. **We are especially interested in adverse impact statistics for the top 150 candidates on the final eligibility list.**

Adverse impact reductions are described in Section 3.1.3.3. Standardized mean differences (SMD) pertaining to those reductions are presented in the following table. SMD results are based on Cohen's *d* statistic.

Standardized Mean Differences (Cohen's *d*) for Composite Score by Race, Ethnicity, and Sex.

| Groups compared | Sample Sizes | SMD (Cohen's <i>d</i>) |
|--------------------------|--------------|-------------------------|
| Asian / White | 3 / 306 | .69 |
| African American / White | 158 / 306 | -.06 |
| Hispanic / White | 31 / 306 | .12 |
| Female / Male | 38 / 536 | -.13 |

Adverse impact results, in this case 80% Rule and the Two Standard Deviation test (2 SD, aka Z_D) are presented as implemented for this data sample using the top 150 scoring candidates (note: the actual sample size was 151 due to tie scores).

Adverse Impact Comparison

| Group | 80% Rule | 2 SD Tests |
|--------------------------|----------|------------|
| Asian / White | 114.6% | .16 |
| African American / White | 82.7% | -1.15 |
| Hispanic / White | 88.7% | -.38 |
| Female / Male | 83.9% | -.56 |

Note: 4/5ths values less than .80 or 2 SD values greater 1.96 are considered evidence of adverse impact.

- f. How would you administer a computer or written exam at the same time, in a single setting?

Traditionally, the easiest way to administer a written exam where all candidates take the exam in a single setting is through a paper and pencil administration. Depending on the venue and the number of candidates, all candidates could be administered the same exam simultaneously. In light of the Covid-19 pandemic, numerous rooms with a smaller number of candidates in each would be more of a reasonable plan. Morris & McDaniel



has parallel versions of the written exam so the examination could be scheduled in up to three settings without an issue with security.

If Morris & McDaniel were to administer the written exam via a computerized administration, we would recommend testing candidates through a continuous recruitment process. Coupled with the structured oral process, candidates could take the written exam and the oral component in one setting. By combining both components, we could offer numerous versions, and each would be administered randomly to each candidate.

g. What will you do to ensure requests for information from the City and/or any other government entity are met in a timely manner?

Morris & McDaniel makes it a priority to establish and maintain strong professional relationships with our clients. We will designate a liaison for direct communication with the City or any other government entity. This liaison will ensure that all requests for information are sent to the correct member of the staff based on the expertise needed and will monitor a timely response back to the client. We also recommend the establishment of weekly/biweekly/monthly TEAMS meeting with our staff and clients to discuss updates and logistical needs.

NEW HAVEN FIRE DEPARTMENT

Based on the information listed in Tab 3, References, for each municipal fire departments for which you have provided fire department entry exams during the past ten years, provide:

a. What selection procedures were used?

A Cognitive, Non-Cognitive, and Structured Oral component were used.

b. How were the selection procedures scored?

i. Pass/fail or compensatory? If compensatory, provide the weights of each selection procedure.

Cognitive, Non-Cognitive, and Structured Oral component components were combined to form a composite score which follows a compensatory scoring model. Final score lists were rank ordered based on the composite score. The written test is combination of Cognitive and Non-cognitive components and account 25%, with the Structured oral counting 75%.

ii. Is the selection of the final candidate done from a rank order list, banding, or another method?

Preference points (e.g., veterans) were added to the composite score. The total of the preference points plus composite score was rank ordered. The rank ordered composite score list was used to determine the candidate who moved forward to a pre-hire screening phase conducted by Human Resources.

To clarify, we interpret "final candidate" as meaning the rank-ordered list that determined a candidate's eligibility to proceed from the assessment phase to the next hiring phase. That list



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was not used to make a final hiring decision because candidates had to successfully completed other conditions, post-assessment.

iii. Are the scores normalized?

Scores were not normalized.

iv. What was the weight of the cognitive component used? Which cognitive ability components are measured in the cognitive test?

The written test is combination of the Cognitive and Non-cognitive components and account 25%, with the Structured oral counting 75%.

The cognitive ability components measured are listed in our response to Section 3.2.2.

v. Was an oral interview utilized? What was the weight of the interview component? What ability components were measure?

A Structured Oral component was used. Depending on the hiring cycle, it was weighted from 75% of the total composite score.

c. If a structured oral interview or oral board was conducted, please go into detail on evaluator training. How was the oral conducted? Was it video or audio only? How many candidates were interviewed and how long did it take? If no structured oral interviews or oral boards, please explain why.

An assessor training program was provided to all assessors prior to the scoring of the Structured Oral component. Morris & McDaniel staff conducted the training session which lasted one to one and one half days.

The assessor syllabus served as the major training text and covered the following topics:

- Introduction
- Outline of the Assessor Training
- Agenda for Assessors
- Assessors' Reactions to Performance-Based Assessment (Assessment Centers)
- History of Performance-Based Assessment
- Performance-Based Assessment Principles
- Performance-Based Assessment Procedure
- Performance-Based Assessment Dimensions
- Performance-Based Assessment Exercises
- Dimension by Exercise Matrix
- Rating Behavior
- Behavioral Observation and Recording
- Use of Assessor Report Forms
- Recognizing and Classifying Behavior by Dimensions
- Behavior Examples Exercise
- Behavior by Dimensions Exercise
- Evaluating Behavior by Dimensions
- Behavior Classification Exercise
- Mock Performance-Based Assessment: Practice on the Actual Exercises
- Ethics of Performance-Based Assessment Operations



- Individual Assessor Rating Forms

The above training utilizes a frame-of-reference approach. During the training, assessors participated in specially designed exercises to hone their assessment skills. The job description for the targeted position was provided to all assessors and was reviewed by the assessors.

How was the oral conducted?

Morris & McDaniel administered a structured oral process to entry level candidates. The administration occurred in a school where we were able to make use of the individual classrooms, auditorium, cafeteria, and gymnasium.

Candidates were scheduled in groups and participated in a brief candidate orientation before being individually escorted into classrooms to give his/her responses to 3 scenarios. The scenarios were read to the candidate and each also had a paper copy to refer to while responding.

Traditionally, three versions were used over 1 ½ days.

Was it video or audio only?

The candidate responses were video recorded.

How many candidates were interviewed and how long did it take?

2013 – 1499 – 2 days

2016 – 38 – ½ day

2017 – 664 – 1 day

2019 – 563 – 1 day

d. If you use biodata, provide a sample of your biodata items. How were they developed? How were they validated?

A biodata assessment was not used.

e. What was the validity and adverse impact for each test battery?

i. For validity, provide criterion-related validity evidence to support or justify the use of the specified assessments. Claims of criterion-related validity should be supported by the provision of a validity coefficient and the requisite information and data (e.g., sample size, sample type [applicant vs incumbent], criteria and source, corrections if any, and of what type, etc.) that went into the generation of the specified coefficients.

Criterion-related validity results are not available for this client.

ii. For adverse impact, provide empirically based evidence to support statements pertaining to subgroup differences and adverse impact reduction or elimination. Thus, for subgroup differences, it is expected that information pertaining to the standardized mean differences (d) will be provided. It is expected that similar information will be provided for adverse impact as well. This would include the prototypical adverse impact statistics such as the 80% rule (adverse impact ratio), z-test, chi-square test, Fisher Exact test, and Zir, and the cut-points on which these



analyses are based. The magnitude of these differences should also be interpreted in the context of what is commonly reported in the extant literature for the focal and/or similar constructs. **We are especially interested in adverse impact statistics for the top 150 candidates on the final eligibility list.**

Adverse impact reductions are described generally in Section 3.1.3.3. Standardized mean differences (SMD) for this client are presented below. SMD results are based on Cohen's *d* statistic.

Standardized Mean Differences (Cohen's *d*) for Composite Score by Race, Ethnicity, and Sex.

| Groups compared | Sample Sizes | SMD (Cohen's <i>d</i>) |
|--------------------------|--------------|-------------------------|
| Asian / White | 4 / 308 | -.06 |
| African American / White | 132 / 308 | .07 |
| Hispanic / White | 85 / 308 | -.02 |
| Female / Male | 48 / 515 | .44 |

Adverse impact results, in this case 80% Rule and the Two Standard Deviation test (2 SD, aka Z_D) are presented for this data sample using the top 150 scoring candidates.

Adverse Impact Comparison

| Group | 80% Rule | 2 SD Tests |
|--------------------------|----------|------------|
| Asian / White | 93.9% | -.07 |
| African American / White | 113.8% | .79 |
| Hispanic / White | 75.1% | -1.25 |
| Female / Male | 137.1% | 1.44 |

Note: 4/5ths values less than .80 or 2 SD values greater 1.96 are considered evidence of adverse impact.

f. How would you administer a computer or written exam at the same time, in a single setting?

Traditionally, the easiest way to administer a written exam where all candidates take the exam in a single setting is through a paper and pencil administration. Depending on the venue and the number of candidates, all candidates could be administered the same exam simultaneously. In light of the Covid-19 pandemic, numerous rooms with a smaller number of candidates in each would be more of a reasonable plan. Morris & McDaniel has parallel versions of the written exam so the examination could be scheduled in up to three settings without an issue with security.

If Morris & McDaniel were to administer the written exam via a computerized administration, we would recommend testing candidates through a continuous



recruitment process. Coupled with the structured oral process, candidates could take the written exam and the oral component in one setting. By combining both components, we could offer numerous versions, and each would be administered randomly to each candidate.

g. What will you do to ensure requests for information from the City and/or any other government entity are met in a timely manner?

Morris & McDaniel makes it a priority to establish and maintain strong professional relationships with our clients. We will designate a liaison for direct communication with the City or any other government entity. This liaison will ensure that all requests for information are sent to the correct member of the staff based on the expertise needed and will monitor a timely response back to the client. We also recommend the establishment of weekly/biweekly/monthly TEAMS meeting with our staff and clients to discuss updates and logistical needs.

STAMFORD FIRE DEPARTMENT

Based on the information listed in Tab 3, References, for each municipal fire departments for which you have provided fire department entry exams during the past ten years, provide:

a. What selection procedures were used?

A Cognitive, Non-Cognitive, and Structured Oral component were used.

b. How were the selection procedures scored?

i. Pass/fail or compensatory? If compensatory, provide the weights of each selection procedure.

Cognitive, Non-Cognitive, and Structured Oral component components were combined to form a composite score which follows a compensatory scoring model. Final score lists were rank ordered based on the composite score. The written test is combination of Cognitive and Non-cognitive components and account 30%, with the Structured oral counting 70%.

ii. Is the selection of the final candidate done from a rank order list, banding, or another method?

Preference points (e.g., veterans) were added to the composite score. The total of the preference points plus composite score was rank ordered. The rank ordered composite score list was used to determine the candidate who moved forward to a pre-hire screening phase conducted by Human Resources.

To clarify, we interpret "final candidate" as meaning the rank-ordered list that determined a candidate's eligibility to proceed from the assessment phase to the next hiring phase. That list was not used to make a final hiring decision because candidates had to successfully completed other conditions, post-assessment.

iii. Are the scores normalized?



Scores were not normalized.

- iv. What was the weight of the cognitive component used? Which cognitive ability components are measured in the cognitive test?

The written test is combination of the Cognitive and Non-cognitive components and account 30%, with the Structured oral counting 70%.

The cognitive ability components measured are listed in our response to Section 3.2.2.

- v. Was an oral interview utilized? What was the weight of the interview component? What ability components were measure?

A Structured Oral component was used. Depending on the hiring cycle, it was weighted from 70% of the total composite score.

- c. If a structured oral interview or oral board was conducted, please go into detail on evaluator training. How was the oral conducted? Was it video or audio only? How many candidates were interviewed and how long did it take? If no structured oral interviews or oral boards, please explain why.

An assessor training program was provided to all assessors prior to the scoring of the Structured Oral component. Morris & McDaniel staff conducted the training session which lasted one to one and one half days.

The assessor syllabus served as the major training text and covered the following topics:

- Introduction
- Outline of the Assessor Training
- Agenda for Assessors
- Assessors' Reactions to Performance-Based Assessment (Assessment Centers)
- History of Performance-Based Assessment
- Performance-Based Assessment Principles
- Performance-Based Assessment Procedure
- Performance-Based Assessment Dimensions
- Performance-Based Assessment Exercises
- Dimension by Exercise Matrix
- Rating Behavior
- Behavioral Observation and Recording
- Use of Assessor Report Forms
- Recognizing and Classifying Behavior by Dimensions
- Behavior Examples Exercise
- Behavior by Dimensions Exercise
- Evaluating Behavior by Dimensions
- Behavior Classification Exercise
- Mock Performance-Based Assessment: Practice on the Actual Exercises
- Ethics of Performance-Based Assessment Operations
- Individual Assessor Rating Forms

The above training utilizes a frame-of-reference approach. During the training, assessors participated in specially designed exercises to hone their assessment skills. The job



description for the targeted position was provided to all assessors and was reviewed by the assessors.

How was the oral conducted?

Morris & McDaniel administered a structured oral process to entry level candidates. The administration occurred in a school where we were able to make use of the individual classrooms, auditorium, cafeteria, and gymnasium.

Candidates were scheduled in groups and participated in a brief candidate orientation before being individually escorted into classrooms to give his/her responses to 3 scenarios. The scenarios were read to the candidate and each also had a paper copy to refer to while responding.

Traditionally, three versions were used over 1 ½ days.

Was it video or audio only?

The candidate responses were video recorded.

How many candidates were interviewed and how long did it take?

2015 – 378 – 1 day

2018 – 844 – 1 ½ day

- d. If you use biodata, provide a sample of your biodata items. How were they developed? How were they validated?

A biodata assessment was not used.

- e. What was the validity and adverse impact for each test battery?

i. For validity, provide criterion-related validity evidence to support or justify the use of the specified assessments. Claims of criterion-related validity should be supported by the provision of a validity coefficient and the requisite information and data (e.g., sample size, sample type [applicant vs incumbent], criteria and source, corrections if any, and of what type, etc.) that went into the generation of the specified coefficients.

Criterion-related validity results are not available for this client.

ii. For adverse impact, provide empirically based evidence to support statements pertaining to subgroup differences and adverse impact reduction or elimination. Thus, for subgroup differences, it is expected that information pertaining to the standardized mean differences (d) will be provided. It is expected that similar information will be provided for adverse impact as well. This would include the prototypical adverse impact statistics such as the 80% rule (adverse impact ratio), z-test, chi-square test, Fisher Exact test, and Zir, and the cut-points on which these analyses are based. The magnitude of these differences should also be interpreted in the context of what is commonly reported in the extant literature for the focal and/or similar constructs. **We are especially interested in adverse impact statistics for the top 150 candidates on the final eligibility list.**



Adverse impact reductions are described generally in Section 3.1.3.3. Standardized mean differences (SMD) for this client are presented below. SMD results are based on Cohen's *d* statistic.

Standardized Mean Differences (Cohen's *d*) for Composite Score by Race, Ethnicity, and Sex.

| Groups compared | Sample Sizes | SMD (Cohen's <i>d</i>) |
|--------------------------|--------------|-------------------------|
| Asian / White | 17 / 580 | .01 |
| African American / White | 93 / 580 | -.02 |
| Hispanic / White | 105 / 580 | -.14 |
| Female / Male | 55 / 788 | -.31 |

Adverse impact results, in this case 80% Rule and the Two Standard Deviation test (2 SD, aka Z_D) are presented as implemented for this data sample using the top 150 scoring candidates.

Adverse Impact Comparison

| Group | 80% Rule | 2 SD Tests |
|--------------------------|----------|------------|
| Asian / White | 135.1% | .65 |
| African American / White | 98.8% | -.05 |
| Hispanic / White | 87.5% | -.55 |
| Female / Male | 137.0% | 1.20 |

Note: 4/5ths values less than .80 or 2 SD values greater 1.96 are considered evidence of adverse impact.

f. How would you administer a computer or written exam at the same time, in a single setting?

Traditionally, the easiest way to administer a written exam where all candidates take the exam in a single setting is through a paper and pencil administration. Depending on the venue and the number of candidates, all candidates could be administered the same exam simultaneously. In light of the Covid-19 pandemic, numerous rooms with a smaller number of candidates in each would be more of a reasonable plan. Morris & McDaniel has parallel versions of the written exam so the examination could be scheduled in up to three settings without an issue with security.

If Morris & McDaniel were to administer the written exam via a computerized administration, we would recommend testing candidates through a continuous recruitment process. Coupled with the structured oral process, candidates could take the written exam and the oral component in one setting. By combining both components, we could offer numerous versions, and each would be administered randomly to each candidate.



g. What will you do to ensure requests for information from the City and/or any other government entity are met in a timely manner?

Morris & McDaniel makes it a priority to establish and maintain strong professional relationships with our clients. We will designate a liaison for direct communication with the City or any other government entity. This liaison will ensure that all requests for information are sent to the correct member of the staff based on the expertise needed and will monitor a timely response back to the client. We also recommend the establishment of weekly/biweekly/monthly TEAMS meeting with our staff and clients to discuss updates and logistical needs.

ii. Has the Offeror, or any assessment tool or process used by the Offeror, been the subject of an investigation by a government enforcement agency, a private lawsuit, or a contract grievance during the past ten years? If so, please state:

a. The identity the employer(s) involved, and the time frame of the investigation, lawsuit, or grievance;

Our 2013 Fire Entry Process for the City of Austin was subjected to DOJ review; not as the result of a grievance against the process, but as a part of the primary focus on the 2012 process conducted by another vendor. The investigation of the 2012 process was underway before we were awarded the 2013 process and was concluded with the entry of a consent decree that, among other things, permitted a significant number of hires from our 2013 list. Our process was used and as a result the judge eventually ended the consent decree.

b. The assessment(s) that were involved in the matter;

The assessment that was involved was our City of Austin 2013 Fire Entry Level process.

c. The circumstances and outcome of the investigation, lawsuit, or grievance.

The investigation was undertaken as a part of the DOJ's overall review of the City's selection process. The outcome was that, under the consent decree, our 2013 process was affirmed to the extent that significant number of new hires were authorized using our 2013 rank-ordered list. The court record indicates that the test was found to be valid. The judge ended the consent decree in part due to the success of our procedures.



TAB 6: PRICE PROPOSAL

Information described is required from each Offeror. The City will retain ten percent (10%) of each step of the contractual price until Steps 1 – 4 and Steps 5 – 6 have been submitted and accepted. After completion and acceptance of Steps 1 – 4, the Successful Contractor shall submit an invoice for the 10% retained. After completion and acceptance of Steps 5 – 6, the Successful Contractor shall submit an invoice for the 10% retained.

Based on Section 0500 Scope of Work, Item 3.1, list your not-to-exceed costs for the deliverables at each Step defined in Sec. 4.0, assuming that each assessment will be administered to 2,500 candidates. You're not-to-exceed price should be a total cost number including all personnel costs, administrative and overhead costs, fees, travel costs, and all other costs that would be charged to the City. If the cost of a Step varies by the number of candidates being assessed, number of sessions conducted, or other factors, provide a specific, quantifiable description of how the cost varies at that Step. The total of all milestone Step payments should equal the total project not-to-exceed cost for a single testing cycle. Provide your cost breakdown in the following format:

| Milestone Step (Scope of Work 4.0) | TOTAL Not-to-Exceed Cost for 2,500 Candidates |
|---|--|
| STEP 1: Pre-Work | \$20,000.00 |
| STEP 2: Development of Assessment Plan and Materials | \$35,000.00 |
| STEP 3: Assessment Administration | \$55,000.00 |
| STEP 3: Assessment Scoring | \$120,000.00 |
| STEP 5: Analysis of Results | \$32,500.00 |
| STEP 6: Final Evaluation | \$15,000.00 |
| TOTAL PROJECT COST | \$277,500.00 |

Note 1: Should the City elect to adopt our continuous testing protocol in any subsequent renewal years, we agree to implement the process at a price of \$187,500.00 so long as candidate numbers remain at a level of 2,500 per year or less. In those years when total candidate numbers for the contract year should exceed the total of 2,500, we will continue the scoring process and report the results for the price of \$50 per each candidate testing over 2,500.

Note 2: Should considerations associated with the Covid-19 Pandemic require scoring to be accomplished using our remote teleconference panel scoring, there will need to be an extra \$10,000 added to Step 4.



PROVISIONS FOR EXPERT TESTIMONY AND/OR LEGAL ASSISTANCE

Dr. David M. Morris, President of Morris & McDaniel, has been an expert witness in Federal Court on numerous occasions. With a few exceptions, these were Title VII cases. Dr. Morris is a Psychologist with licensing in Industrial/Organizational Psychology and an attorney who has been recognized by the profession of Industrial/Organizational Psychology as an authoritative source in designing personnel systems which emphasize legal fairness and legal defensibility. Our firm will always provide as much expert witness assistance as needed by our clients. Dr. Morris will be available for expert testimony should this need develop. Fees for expert testimony services are \$3500 as a fully earned retainer. For testimony or deposition, fees are \$3500 for each day of deposition or any part thereof or for each day of testimony or any part thereof. If the day extends beyond a ten (10) hour period, the fee is \$350 for each additional hour. Research time is billed at \$350 per hour plus any related expenses. Airfare is billed at the least expensive, non-restrictive coach fare and hotels are billed at regular business class rates.



TAB 7: LOCAL BUSINESS PRESENCE

The City seeks opportunities for businesses in the Austin Corporate City Limits to participate on City contracts. A firm (Offeror or Subcontractor) is considered to have a Local Business Presence if the firm is headquartered in the Austin Corporate City Limits, or has a branch office located in the Austin Corporate City Limits in operation for the last five (5) years, currently employs residents of the City of Austin, Texas, and will use employees that reside in the City of Austin, Texas, to support this contract. The City defines headquarters as the administrative center where most of the important functions and full responsibility for managing and coordinating the business activities of the firm are located. The City defines branch office as a smaller, remotely located office that is separate from a firm's headquarters that offers the services requested and required under this solicitation. Points will be awarded through a combination of the Offeror's Local Business Presence and/or the Local Business Presence of their subcontractors. Evaluation of the Team's Percentage of Local Business Presence will be based on the dollar amount of work as reflected in the Offeror's MBE/WBE Compliance Plan or MBE/WBE Utilization Plan. Specify if and by which definition the Offeror or Subcontractor(s) have a local business presence.

Morris & McDaniel does not have a local business presence; however, any local subcontractors used during the course of the contract will come from the MBE/WBE Utilization Plan provided by the City of Austin.



TAB 8: SERVICE – DISABLED VETERAN BUSINESS ENTERPRISE

Pursuant to the interim Service-Disabled Veteran Business Enterprise (SDVBE) Program, Offerors submitting proposals in response to a Request for Proposals shall receive a three point (3 percent) preference if the Offeror, at the same time the proposal is submitted, is certified by the State of Texas, Comptroller of Public Accounts as a Historically Underutilized Business and is a Service-Disabled Veteran Business Enterprise. This preference does not apply to subcontractors. To receive this preference, Offerors shall complete the enclosed Section 0840 Service-Disabled Veterans Business Enterprise Preference Form, in accordance with the Additional Solicitation Instructions included therein.

Morris and McDaniel has completed and included the enclosed Section 0840 Service – Disabled Veterans Business Preference Form, in accordance with the Additional Solicitation Instructions included therein.



APPENDIX A

Release by the City of New York





Lisette Camilo
Commissioner

Mersida Ibric
Acting Deputy Commissioner Office of Citywide Procurement

The David N. Dinkins Municipal Building
1 Centre Street
New York, NY 10007

212 386 6311 tel
nyc.gov/dcas

DATE: APRIL 4, 2017

TO: To: 'dwinrich@psionline.com' <dwinrich@psionline.com>; 'TCollins@psionline.com' <TCollins@psionline.com>; 'jennifer.cerciello@pearson.com' <jennifer.cerciello@pearson.com>; 'Peter@aptask.com' <Peter@aptask.com>; 'breana@bonova.net' <breana@bonova.net>; 'LAnderson@HumRRO.org' <LAnderson@HumRRO.org>; 'hnguyen@air.org' <hnguyen@air.org>; Joe Nassar <joe@morrisandmcdaniel.com>; 'gbarrett@barrett-associates.com' <gbarrett@barrett-associates.com>; 'mmcpheil@valtera.com' <mmcpheil@valtera.com>; 'dmcleod@capstonestrategygroup.com' <dmcleod@capstonestrategygroup.com>; 'Anderson@HumRRO.org' <Anderson@HumRRO.org>; 'mmihalecz@psionline.com' <mmihalecz@psionline.com>; 'KHANS@CRESERVICESINC.COM' <KHANS@CRESERVICESINC.COM>; 'info@drchengzhu.com' <info@drchengzhu.com>; 'shanep@pmglc.com' <shanep@pmglc.com>; 'janet.echemendia@ebjacobs.com' <janet.echemendia@ebjacobs.com>; 'dwinrich@psionline.com' <dwinrich@psionline.com>; 'dmcleod@capstonestrategygroup.com' <dmcleod@capstonestrategygroup.com>; Glenna Allen <glenna@morrisandmcdaniel.com>; 'BIDWATCH@CENTERDIGITALGOV.COM' <BIDWATCH@CENTERDIGITALGOV.COM>; 'RCVRF@MGTAMER.COM' <RCVRF@MGTAMER.COM>; 'DIAMONDSPOWER@MSN.COM' <DIAMONDSPOWER@MSN.COM>; 'PROPPRESOURCE@AIR.ORG' <PROPPRESOURCE@AIR.ORG>; 'PDVAVIES@THEPUBLICGOOD-NYC.COM' <PDVAVIES@THEPUBLICGOOD-NYC.COM>; 'VGREMELSBACKER@PTCNY.COM' <VGREMELSBACKER@PTCNY.COM>; 'SHANEP@PMGLC.COM' <SHANEP@PMGLC.COM>; 'KELLY.MCINTYRE@BOOTHRESEARCHGROUP.COM' <KELLY.MCINTYRE@BOOTHRESEARCHGROUP.COM>; 'LAURIE.ZELESNIKAR@PDRI.COM' <LAURIE.ZELESNIKAR@PDRI.COM>; 'DFRANCO@SEGALCO.COM' <DFRANCO@SEGALCO.COM>; David Morris <morrisd@morrisandmcdaniel.com>; 'MARYAP@DEP.NYC.GOV' <MAYAP@DEP.NYC.GOV>; 'LAURIE@PRIME-VENDOR.COM' <LAURIE@PRIME-VENDOR.COM>; 'DMCLEOD@CAPSTONESTRATEGYGROUP.COM' <DMCLEOD@CAPSTONESTRATEGYGROUP.COM>; 'KDOUCET@PROEXAM.ORG' <KDOUCET@PROEXAM.ORG>; 'TERRI.DUNBAR@PEARSON.COM' <TERRI.DUNBAR@PEARSON.COM>; 'GBS@BIDNET.COM' <GBS@BIDNET.COM>; 'MP@SREYO.COM' <MP@SREYO.COM>; 'JSCAMURRA@TTACORP.COM' <JSCAMURRA@TTACORP.COM>; 'JWIESEN@APPLIEDPERSONNELRESEARCH.COM' <JWIESEN@APPLIEDPERSONNELRESEARCH.COM>; 'BULLAYSHAHINC@GMAIL.COM' <BULLAYSHAHINC@GMAIL.COM>; 'DP@DONIAA.COM' <DP@DONIAA.COM>; 'bhasyakarulu@gmail.com' <bhasyakarulu@gmail.com>; 'SourceManagement2@onvia.com' <SourceManagement2@onvia.com>; Mohammed Belarrem (DCAS) <mbelarrem@dcas.nyc.gov>; 'bidsinbound@deltek.com' <bidsinbound@deltek.com>; 'elizabeth.sexton@northhighland.com' <elizabeth.sexton@northhighland.com>; 'marketing2@dackconsulting.com' <marketing2@dackconsulting.com>; 'info@bruteforcesolution.com' <info@bruteforcesolution.com>; 'news@nyiha.org' <news@nyiha.org>; 'tosha.miller@nycbcc.org' <tosha.miller@nycbcc.org>; 'lyra@napc.me' <lyra@napc.me>; 'mallory302@gmail.com' <mallory302@gmail.com>; 'office@forensicfoundations.com'

<office@forensicfoundations.com>; <rconover@wisengineering.com>;
<daveseliger@gmail.com>; <daveseliger@gmail.com>; <ansump@oathinc.com>;
<breana@bonova.net>; <ajordan@onesourcesbc.com>;
<kenneth.bruskiewicz@pdri.com>; <allisonschulhof@maximus.com>;
<allisonschulhof@maximus.com>; <laurensalomon@peopleadvantage.net>;
<laurensalomon@peopleadvantage.net>; <sales@jobaps.com>;
<amule@amtexsystems.com>; <amule@amtexsystems.com>; <janine@jasleadership.com>;
<janine@jasleadership.com>; <dtafelski@edsolutions.com>;
<sprya@saptanet.com>; <sprya@saptanet.com>; <tcollins@psionline.com>;
<proposals@humro.org>; <proposals@humro.org>; <info@drchengzhu.com>;
<sue.kim@ebjacobs.com>; <sue.kim@ebjacobs.com>; <susank@panix.com>;
<jay.floersch@Aonhewitt.com>; <jay.floersch@Aonhewitt.com>; <Catkinson@biddle.com>;
<Catkinson@biddle.com>; <don_bunch@us.ibm.com>; <don_bunch@us.ibm.com>; <sdawson@cpshr.us>;
<sdawson@cpshr.us>;
Cc: Barbara Dannenberg (DCAS) <bdannenberg@dcas.nyc.gov>; Andrea Valentine (DCAS)
<AV Valentine@dcas.nyc.gov>; Stephen Stamo (DCAS) <ssstamo@dcas.nyc.gov>; Ozgur Manuka (DCAS)
<omanuka@dcas.nyc.gov>

RE: ADDENDUM #2 TO THE REQUEST FOR PROPOSALS FOR DCAS JOB ANALYSES AND
CIVIL SERVICE EXAMS E-PIN: 85617P0001

The Department of Citywide Administrative Services ("DCAS") is issuing the following as Addendum
#2 to the above-referenced Request for Proposals ("RFP"):

This addendum includes the following information:

Section I: Proposal Submission Revised Due Date and Time Section II: Questions &
Answers
Section III: Changes to Attachment B

Question #17: Can you please share the incumbent's name?

Response: DCAS currently has one vendor, **Morris and McDaniel, Inc.**, providing services in job
analyses and civil service exams development. Any further detail in connection with the current
contract can be requested by submitting a Foil Request to the Agency by e-mailing at
foilrequest@dcas.nyc.gov.

APPENDIX B

Grading of Professional Work by the City of New York





[Profile](#)
[Tasks](#)
[Contracts](#)
[Catalogs](#)
[Ordering](#)
[Invoicing](#)

[Performance](#)
[Support](#)

David M. v

Search



Questionnaire: Campaign - Renewal of Job Analysis, Testing, Development & Scoring

[Dispute](#)
[Accept](#)

Label Campaign - Renewal of Job Analysis Testing Development & Scoring

Evaluation Period Begin Date 10/15/2016

Description

Evaluation Period End Date 10/15/2017

Status Vendor Review

Excellent

Excellent >80-100
 Good >60-80
 Satisfactory >40-60
 Poor >20-40
 Unsatisfactory 0-20

| Category / Subcategory | Score |
|--|-------|
| Timeliness of Performance | 100 |
| Fiscal Administration and Accountability | 100 |
| Performance and Overall Quality | 100 |

EVALUATIONS v

| Label | Status | Score |
|--|----------|-------|
| Campaign - Renewal of Job Analysis Testing Development & Scoring | Approved | 100 |
| 1 Result(s) | | |



Evaluation : Campaign - Renewal of Job Analysis, Testing, Development & Scoring

Questionnaire: Campaign ,

Close

Performance and Overall Quality

- - - - 100%

Label Campaign - Renewal

Description

Status Vendor Review

Excellent

Category/ Subcategory

Timeliness of Performance

Fiscal Administration and Accountability

Performance and Overall Quality

EVALUATIONS

Label

Campaign - Renewal of Job Analysis

1 Result(s)

Vendor was given any extensions of time to produce deliverables including but not limited to reports audits schedules designs or studies?

- Answer
- Yes
 - No

Question 1.2

1.00

the vendor was given any extensions of time were any such extensions reasonable?

- Answer
- Yes
 - No

Question 1.3

2.00

Were any unreasonable delays in the contract work caused by the vendor or any of its subcontractor(s)?

- Answer
- Yes
 - No

Question 1.4

1.00

applicable was the vendor timely in obtaining approvals from regulatory agencies?

- Answer
- Yes
 - No

Timeliness of Performance Rating

100.00

- Answer
- Excellent
 - Good
 - Satisfactory
 - Poor
 - Unsatisfactory

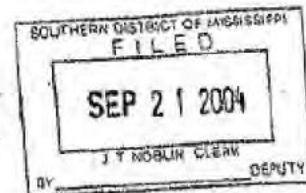
Comment All deliverables were received in a timely manner

APPENDIX C

Ruling by Judge Walter Gex



IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF MISSISSIPPI
SOUTHERN DIVISION



WILLIE MORROW, et al.,

Plaintiff,

-vs-

JIM INGRAM,
Commissioner of Public Safety
of Mississippi, et al.

Defendants.

Civil Action No. 4716 (G)

Judge Walter J. Gex, III

SETTLEMENT AGREEMENT AND ORDER

A: Introduction and History of This Case

1. This action was originally filed on July 30, 1970 as a class action employment discrimination suit pursuant to the Fifth and Fourteenth Amendments to the United States Constitution, Title VI of the Civil Rights Act of 1964, and Title 42, U.S.C. §§§ 1981, 1983 and 2000(d) on behalf of all African-American individuals ("Plaintiffs") seeking declaratory and injunctive relief with respect to discriminatory hiring practices followed in the recruitment, examining and hiring of individuals for the position of State Trooper/Patrolman (hereinafter "Patrol") for the Department of Public Safety of Mississippi (the "Department" or "Defendants").

2. On September 29, 1971 this Court, Judge Nixon presiding, entered an Order finding the hiring practices of the Defendant to be discriminatory, and granting the plaintiffs certain relief. That Order has been modified and supplemented from time to time since 1971. The Court has maintained continuing jurisdiction over this proceeding and over the defendants for purposes of enforcing its orders. The defendants and their



circumstances. Plaintiffs opposed the motion and asserted that the integration in the workforce is due to the consent decree and the 50-50 recruitment order and, if dissolved the workforce would re-segregate.

6. The Department contracted with Morris & Associates, an industrial psychological firm, to develop a valid entry level selection process for the job of State Trooper. That system has now been developed and the Department intends to use that process in the selection of future cadet classes. Defendant believes that this is a valid selection process that is job related and consistent with business necessity. A copy of those procedures and reports has been made available to plaintiffs.

7. All parties agree at this point in time that the Department's current force is 34% African American and the relevant labor market in Mississippi according to the 2000 census is 26% African-American.

8. The Plaintiffs have reviewed the untested selection process and do not believe that disparate impact can be assessed until after the selection process has been implemented.

9. All parties agree that it is in their best interest to avoid the uncertainties, delay and expense of protracted litigation.

10. The parties all recognize the significant benefit to implementing the revised Patrol selection process, including the requisite monitoring and refining as appropriate during its initial implementation.

B. Agreed Implementation of Revised Patrol Selection Process

11. The selection process developed by Morris & Associates, referenced above, will be used to select candidates for subsequent cadet classes of the Mississippi Department of Public Safety. That process consists of the following:
12. All individuals seeking to be hired by the Patrol shall submit an application in compliance with Miss. Code §§ 45-3-7, 45-3-9.
13. All applicants meeting the above minimum qualifications will take the Reading Ability Test developed by Morris & Associates, Management Consultants of Jackson, MS which was submitted to Plaintiffs for review and is under seal with the Court as the "Mississippi Highway Patrol Reading Ability Test," as well as retained by the Department. This Reading Ability Test will test the applicant's ability to read at no more than an 1st grade level as per Flesch-Kincaid.
14. The Reading Ability Test will be graded as "pass" or "fail" with a cut score of 77% or 33 correct answers out of 43 items.
15. All applicants with a "pass" grade will move to the next step in the Patrol selection process.
16. The step following the Reading Ability Test in the Patrol selection process is the Written Examination developed by Morris & Associates, Management Consultants of Jackson, MS which was submitted to Plaintiffs for review and is under seal with the Court as "Mississippi Highway Patrol Written Examination," as well as retained by the Department.





17. All candidates given the Written Examination will also undergo an Oral Interview in compliance with the Oral Interview process outlined in the Entry-level Trooper Oral Board Validation Report prepared by Morris & Associates, Management Consultants of Jackson, MS which was submitted to Plaintiffs for review and is under seal with the Court as "Mississippi Highway Patrol Oral Board Validation Report," as well as retained by the Department.
18. The Written Examination score and the Oral Interview score will be combined and weighted 50/50 to produce a combined score.
19. The applicants will then be placed in rank order based upon the combined scores of the Written Examination and the Oral Interview. The Department will, based upon the rank order, select a number of applicants to advance to the next step of the Patrol selection process, the Background Investigation. The parties agree that the Department will initially implement a top-down ranking order of applicants. If this ranking results in a disparate impact based upon race, the Department will utilize banding of the candidates in an effort to minimize disparate impact.
20. Only those applicants who successfully pass the Background Investigation will move on to the next step in the Patrol selection process, the Polygraph Examination.
21. Those applicants successfully completing the Polygraph Examination will proceed to the next step in the Patrol selection process, the Physical Examination.
22. The applicants successfully completing the Physical Examination will be offered seats as candidates in the Department's academy class.

existence of this lawsuit, notice that there is a proposed settlement and that there will be an opportunity to file objections, and notice that a copy of this Settlement Agreement may be obtained in person or by mail from the Department of Public Safety, Personnel Office, P.O. Box 958, Jackson, MS 39205, between the hours of 8:00 A.M. and 5:00 P.M. on business days. The text of the published Notice is attached hereto as Attachment B.

35. Any objections to this Settlement Agreement must be in writing and postmarked to Michael L. Foreman, Esq., counsel for Plaintiffs, by ~~12:00 noon on~~

The date for filing objections is the
~~2004, or they shall not be considered. The hearing on objections shall be held on~~ *a date to be determined by the Court*
~~2004 at 1:00 P.M. in Courtroom~~

I. In the event that no objections are filed by the deadline, the proposed Settlement Agreement shall stand without further order of the Court as finally approved.

SO ORDERED:



Walter J. Gex, III.
 United States District Judge

Dated: September 17th, 2004



APPENDIX D

Morris & McDaniel Professional Staff Resumes



DAVID M. MORRIS, PH.D., J.D., FACFE, DABFE

President

Morris & McDaniel, Inc.
Management Consultants
117 South Saint Asaph Street
Alexandria, VA 22314
Tel: (703) 836-3600
Fax: (703) 836-4280

E-Mail: contact@morrisandmcdaniel.com

Employment Experience:

| | |
|-----------------|--|
| 1976 to present | Founded Morris & McDaniel, Inc. and served as Vice President until 1988; 1988 to present, served as President. |
| 1978 | Adjunct Faculty, University of Southern Mississippi |
| 1976 | Associate for Bayley Associates, Jackson, Mississippi, Industrial/Organizational Management Firm. |
| 1973 | Adjunct Faculty, Delgado College, New Orleans, Louisiana |
| 1970 to 1972 | Adjunct Faculty, Troy State University, Alabama |
| 1970 to 1972 | Research for the U.S. Army |
| 1967 to 1969 | Teaching Assistantship, Mississippi State University, Psychology Department |

Consulting Experience:

Developed and conducted job-related entry-level police officer screening and vetting procedures for the South Sudan National Police Service (SSNPS), South Sudan.

Developed and conducted promotional examinations and assessment centers for the ranks of Police Captain, Police Lieutenant, and Police Sergeant for the City of Houston Police Department, Houston, Texas.

Developed and conducted entry-level and promotional examinations and assessment centers for the ranks of Fire Captain, Battalion Fire Chief, Deputy Fire Chief and Entry-Level Firefighters for the Kansas City Fire Department, Kansas City, Missouri.

Developed and conducted promotional examinations and assessment centers for the ranks of Law Enforcement and Corrections Lieutenant and Sergeant for the Jefferson County Parish Sheriff's Office, Harvey, Louisiana.



Developed and conducted promotional examinations and assessment centers for the ranks of Fire Marshal, Battalion Chief, Captain, Fire Lieutenant and Engineer (Driver) for the Orange County Fire Rescue Department, Orlando, Florida.

Developed and conducted promotional examinations and assessment centers for the ranks of Police Commander, Police Lieutenant and Police Sergeant for the City of Austin Police Department, Austin, Texas.

Development, implementation and translation of a screening test for potential candidates for the Iraqi Police Service (IPS), Baghdad, Iraq.

Developed and conducted promotional examinations and assessment centers for the ranks of Fire District Chief, Fire Lieutenant, and Entry-Level Firefighter for the Brevard County Fire Rescue, Rockledge, Florida.

Developed and conducted promotional examinations and assessment centers for the ranks of Fire Captain, Lieutenant, Sergeant and EMS Battalion Supervisor/Captain for the District of Columbia Fire and EMS Department, Washington, D.C.

Developed and conducted promotional examinations and assessment centers for the ranks of Law Enforcement and Corrections Lieutenant and Sergeant and Entry-Level for the Palm Beach County Sheriff's Office, W. Palm Beach, Florida.

Developed and conducted promotional examinations and assessment centers for the ranks of Police Lieutenant, Police Sergeant and Master Police Officer (MPO) for the Newport News Police Department, Newport News, Virginia.

Developed and conducted promotional examinations and assessment centers for the ranks of Police Captain, Lieutenant and Sergeant for the City of Richmond Police Department, Richmond, Virginia.

Developed and conducted promotional examinations and assessment centers for the ranks of Battalion Chief, Fire Captain, Fire Lieutenant and Entry-Level Firefighter for the New Haven Fire Department, New Haven, Connecticut.

Developed and conducted promotional examinations and assessment centers for the ranks of Police Captain, Lieutenant and Sergeant for the Chesapeake Police Department and for the ranks of Battalion Chief, Captain and Lieutenant for the Chesapeake Fire Department, Chesapeake, Virginia.

Developed and conducted promotional examinations and assessment centers for the ranks of Assistant Chief, Deputy Chief and Driver for the Hartford Fire Department, Hartford, Connecticut.

Developed and conducted promotional examinations and assessment centers for the ranks of Police Corporal, Sergeant, Lieutenant, and Captain for Norfolk Police Department and the ranks of Fire Captain and Battalion Fire Chief for Norfolk Fire Department for the City of Norfolk, Virginia.



Developed and conducted promotional examinations and assessment centers for the ranks of Fire Driver, Fire Lieutenant, Battalion Fire Chief, Air Crash Chief and Division Chief for Memphis Fire Suppression for the City of Memphis, Tennessee.

Developed and conducted entry-level and promotional examinations and assessment centers for the ranks of Commander, Lieutenant and Sergeant for the Colorado Springs Police Department, Colorado Springs, Colorado.

Developed and conducted promotional examinations and assessment centers for the ranks of Law Enforcement Sergeant, Lieutenant, and Captain for the University of Texas at Houston Police Department (MD Anderson Cancer Hospital), Houston, Texas.

Developed and conducted promotional examinations and assessment centers for the ranks of Lieutenant and Sergeant for the Tucson Police Department, Tucson, Arizona.

Development of entry-level law enforcement and correctional examination for jurisdictions throughout the State of Florida.

Developed entry-level entrance examination process for Entry-Level Police Officer for the City of Philadelphia Police Department, Philadelphia, Pennsylvania.

Developed and conducted entry-level and promotional testing for police jurisdictions throughout the State of Georgia.

Developed and conducted promotional examination and assessment centers for Sergeant and Lieutenant for City of Boston, Massachusetts.

Developed written tests and promotional process for Detective for Boston Police Department, Boston, Massachusetts.

Developed and conducted pre-test training, written tests, and assessment centers for Police Corporal, Sergeant, Lieutenant, Fire Lieutenant, Station Commander, and Shift Commander for Arlington County, Virginia.

Developed job-related Entry-Level Police and Fire examinations for Kenner Police and Fire Departments, Kenner, Louisiana.

Developed and conducted promotional tests for Fire Ranks of Lieutenant, Captain, Battalion Chief, and Assistant Chief for Cleveland Fire Department, Cleveland, Ohio.

Consultant to Port of New Orleans for test development/selection and validation.

Consultant to Amtrak for promotional tests, assessment centers, and performance appraisal systems.

Consultant to Jefferson Parish, Louisiana, for developing a valid and defensible performance appraisal system.

Consultant to Mitchell Engineering for review of selection procedures and applicant flow in anticipation for legal defense work.



Consultant to Southern Scrap for conducting legally defensible personnel selection.

Consultant to the U.S. National Park Service on selection and organizational issues.

Consultant to the State of Wyoming for developing the State's Performance Appraisal System.

Consultant to Johnston-Tombigbee Furniture Co. for review of selection procedures, various personnel aspects, and adverse impact analysis in anticipation of legal defense.

Conducted annual Mississippi Banking Association survey (1986, 1987, 1988) of bank salaries and fringe benefits.

Consultant to State Air and Water Pollution Control Commission (job analysis and job evaluation).

Consultant to Mississippi Department of Public Welfare for the development of a legally defensible training program with valid achievement tests.

Consultant to Seminole Manufacturing for review of recruiting procedures, selection procedures, promotional procedures, and adverse impact analysis in anticipation of legal defense.

Developed promotional examinations for the U.S. Capitol Police.

Conducted comprehensive multi-purpose job analysis for two federal government job series for subcontractor to Human Technology, Inc., for the Office of Personnel Management and Bureau of Labor Statistics.

Conducted job evaluation of 40 jobs and organizational restructuring for Mississippi State Tax Commission.

Conducted job evaluation of selected jobs in the Motor Vehicle Comptroller's Office for Mississippi State Personnel Board.

Conducted three job evaluation projects for: Engineers and Technical Jobs in the State Highway Department, Environmental Engineers in the Pollution Control Bureau, and Industrial Representatives in the Department of Economic Development for Mississippi State Highway Department and Mississippi State Personnel Board.

Conducted comprehensive job analysis and developed selection procedure development for 340 State Jobs for Mississippi State Personnel Board.

Conducted selection and placement of Power Company Managers and Supervisors for Louisiana Power & Light Company, and Mississippi Power & Light Company.

Conducted screening of security personnel for nuclear power industry for Capital Security Services.



Served as the testing expert of record for two power companies as prime contractors for the Nuclear Regulatory Commission.

Developed selection procedure using a written knowledge test and an assessment center for a management position for Mississippi Employment Security Commission.

Developed selection and promotion examinations for three grain operator jobs for Continental Grain Co., New Orleans, Louisiana.

Developed entry-level selection procedure for Medicaid Specialist for Mississippi Medicaid Commission, Jackson, Mississippi.

Conducted cross-national selection testing research project of business companies concerning the use of formal selection tests in the recruitment and selection process for higher status jobs in England, France, and Holland. European Common Market Congress, Europe.

Conducted pre-test training, written examinations and oral boards for Police Sergeants and Lieutenants for Metropolitan Area Transit Authority, Washington, D.C.

Developed and implemented assessment centers for Sergeants, Lieutenants, and Captain and Fire Lieutenants, and District Chief for Police and Fire Department, Corpus Christi, Texas.

Developed and implemented police tests and assessment centers for Corporal, Sergeant, First Sergeant, First Lieutenant, Second Lieutenant, and Captains, for Maryland State Police, Pikesville, Maryland.

Developed and implemented police written tests and assessment centers for Sergeants, Lieutenants, and Captains for Consolidated Office of the Sheriff of the City of Jacksonville, Florida.

Developed job-related Entry-Level Police examinations for Harbor Police of the Port of New Orleans, Louisiana.

Developed job-related Entry-Level Police examination for Orleans Levee Board, New Orleans, Louisiana.

Developed assessment center for Police Sergeant for Rockville City Police Department, Rockville, Maryland.

Developed written examination for Police Detective, Sergeant, Lieutenant and Captains for United States Capitol Police, Washington, D.C.

Conducted individual assessment of Police Candidates for Kenner Police Department, Kenner, Louisiana.

Conducted individual assessment of Police Candidates for St. John the Baptist Parish Police Department.

Conducted individual assessment of Police Candidates for Orleans Levee Board Police Department.



Conducted individual assessment of Police Candidates for Harahan Police Department, Louisiana.

Conducted individual assessment of Police Candidates for Port of New Orleans Police Department, New Orleans, Louisiana.

Developed Entry-Level Firefighter examinations for international market for International Personnel Management Association, Alexandria, Virginia.

Developed and implemented performance appraisal system for Mississippi State Personnel Board.

Developed performance-based merit pay system for state agencies for Mississippi State Personnel Board.

Developed and conducted "Train the Trainers" Program and self-study text on performance standards for Department of the Army, Forces Command Division.

Conducted management assessment for Chief Executive Officer for several private companies. Electric Company, National Association.

Developed and implemented organizational assessment and feedback questionnaire for Bank of Mississippi.

Conducted organizational development for branch office of national accounting firm, Touche Ross.

Conducted organizational development for a food-processing plant for B.C. Rogers Company.

Conducted management training for State Government Managers for Mississippi State Personnel Board.

Developed and conducted job knowledge and skills training program for Welfare Workers for Mississippi State Department of Public Welfare.

Developed pre-employment selection and training program for Welfare Workers for Mississippi State Department of Public Welfare.

Conducted behavioral reliability training for Waterford 3 Nuclear Power Plant, Louisiana Power & Light Company.

Developed and conducted Psychiatric Aide Skills Training Program for Department of Labor, Jobs Training Partnership Act, Nashville, Tennessee.

Developed and conducted customized Food Service Worker Skills Training Program for Department of Labor, Jobs Training Partnership Act, Gulf Coast Business Services Corporation, Gulfport, Mississippi.



Conducted youth entrepreneur summer program for Department of Labor, Jobs Training Partnership Act, Gulf Coast Business Services Corporation, Gulfport, Mississippi.

Evaluation of Pilot Training Programs. Mid Wales Development Board, Great Britain.

Supervised research project regarding equal opportunities in training for Manpower Services Commission, England.

Supervised personal effectiveness and self-development course for Export Credit Guarantee Department, British Civil Service, England.

Developed written tests and assessment centers for Captain for Prince William Fire Department, Prince William, Virginia.

Developed written tests and assessment centers for Fire Lieutenant for Prince William Fire Department, Prince William, Virginia.

Publications:

Morris, D.M., and Thornton, G., The Application of Assessment Center Technology to the Evaluation of Personnel Records, Public Personnel Management, Volume 30 No. 1, Spring 2001.

Morris, D.M., and Pittman, S., Amtrak Police Department, Final Report, Development of the Promotional Procedures for the Position of Lieutenant. Washington, D.C.: Morris & McDaniel, Inc., 1990.

Morris, D.M., and Pittman, S., Amtrak Police Department, Final Report, Development of the Promotional Procedures for the Position of Sergeant. Washington, D.C.: Morris & McDaniel, Inc., 1990.

Morris, D.M., and Pittman, S., Alexandria Fire Department, Final Report, Development of the Promotional Procedures for the Position of Emergency Rescue Technician III. Washington, D.C.: Morris & McDaniel, Inc., 1989.

Morris, D.M., and Pittman, S., Alexandria Fire Department, Final Report, Development of the Promotional Process for the Positions of Lieutenant and Captain. Washington, D.C.: Morris & McDaniel, Inc., 1988.

Morris, D.M., Arlington County Fire Department, Final Report, Development of a Pretraining Package and Examination for Promotion to Fire Supervisor. Washington, D.C.: Morris & McDaniel, Inc., 1984.

Morris, D.M., Arlington County Fire Department, Final Report, Development of a Pretraining Package and Examination for Promotion to Fire Station Commander. Washington, D.C.: Morris & McDaniel, Inc., 1984.



Morris, D.M., Arlington County Fire Department, Final Report, Development of a Pretraining Package and Examination for Promotion to Fire Supervisor. Washington, D.C.: Morris & McDaniel, Inc., 1985.

Morris, D.M., Arlington County Fire Department, Final Report, Development of a Pretraining Package and Examination for Promotion to Fire Shift Commander. Washington, D.C.: Morris & McDaniel, Inc., 1985.

Morris, D.M., Arlington County Fire Department, Final Report, Development of a Pre-Training Package and Examination for Promotion to Fire Station Commander. Washington, D.C.: Morris & McDaniel, Inc., 1985.

Morris, D.M., Arlington County Police Department, Final Report, Development of a Pre-Training Package and Examination for Promotion to Police Sergeant. Washington, D.C.: Morris & McDaniel, Inc., 1985.

Morris, D.M., Arlington County Police Department, Final Report, Development of a Pre-Training Package and Examination for Promotion to Police Lieutenant. Washington, D.C.: Morris & McDaniel, Inc., 1985.

Morris, D.M., Arlington County Police Department, Final Report, Development of a Pre-Training Package and Examination for Promotion to Police Corporal. Washington, D.C.: Morris & McDaniel, Inc., 1985.

Morris, D.M., City of Cleveland Fire Department, Final Report, Development of Promotional Procedures, Washington, D.C.: Morris & McDaniel, Inc., 1989.

Morris, D.M., International Personnel Management Association, Final Report, Development and Validation of IPMA Entry-Level Firefighter Examinations. Washington, D.C.: Morris & McDaniel, Inc., 1989.

Morris, D.M., and Pittman, S., Maryland State Police, Final Report, Development of the Promotional Procedures for Five Ranks. Washington, D.C.: Morris & McDaniel, Inc., 1989.

Morris, D.M., and Pittman, S., Prince William County Department of Fire and Rescue, Final Report, Development of the Promotional Process for Fire Captain. Washington, D.C.: Morris & McDaniel, Inc.

Morris, D.M., and Pittman, S., Prince William County Department of Fire and Rescue, Job Analysis Report for Lieutenant. Washington, D.C.: Morris & McDaniel, Inc., 1989.

Morris, D.M., and Pittman, S., Rockville City Police Department, Final Report, Development of the Promotional Process for the Position of Police Sergeant. Washington, D.C.: Morris & McDaniel, Inc., 1987.

Morris, D.M., and Pittman, S., Rockville City Police Department, Final Report, Development of the Promotional Process for Police Sergeant. Washington, D.C.: Morris & McDaniel, Inc., 1989.



Morris, D.M., and Pittman, S., United States Capitol Police, Content Validity Report for the Position of Sergeant. Washington, D.C.: Morris & McDaniel, Inc., 1988.

Morris, D.M., and Pittman, S., United States Capitol Police, Content Validity Report for the Position of Lieutenant. Washington, D.C.: Morris & McDaniel, Inc., 1988.

Morris, D.M., and Pittman, S., United States Capitol Police, Content Validity Report for the Position of Detective. Washington, D.C.: Morris & McDaniel, Inc., 1988.

Morris, D.M., and Pittman, S., United States Capitol Police, Content Validity Report for the Position of Captain. Washington, D.C.: Morris & McDaniel, Inc., 1988.

Morris, D.M., Jackson Fire Department, Final Report, Development of a Content Valid Promotional Exam for Fire Lieutenant. Washington, D.C.: Morris & McDaniel, Inc., 1990.

Morris, D.M., Boston Police Department, Final Report, Development and Validation of the Promotional Process for Police Sergeant and Lieutenant. Washington, D.C.: Morris & McDaniel, Inc., 1987.

Morris, D.M., Boston Police Department, Final Report, Development and Validation of the Promotional Process for Police Detective. Washington, D.C.: Morris & McDaniel, Inc., 1990.

Morris, D.M., Washington Area Metro Authority Transportation Authority, Job Analysis Report for Police Lieutenant. Washington, D.C.: Morris & McDaniel, Inc., 1985.

Morris, D.M., Washington Area Metro Authority Transportation Authority, Job Analysis Report for Police Sergeant. Washington, D.C.: Morris & McDaniel, Inc., 1985.

Morris, D.M. and Meyers R.W., Developing a Valid and Credible Promotion Process. Washington, D.C.: Morris & McDaniel, Inc. 2016.

Books:

EEO Law and Personnel Practices, Arthur Gutman; David M. Morris, Author of Forward; Tara S. Mead, Sage Production Editor, 1993

Tests Published:

The Multiple-Choice Management In-Basket Exercise. Morris & McDaniel, Inc.: Washington, D.C., 1990.

National Police Entry-Level Examination. Morris & McDaniel, Inc.: Washington, D.C., 1990.

National Firefighter Examination. Morris & McDaniel, Inc.: Washington, D.C., 1989.

IPMA Entry-Level Firefighter Test. International Personnel Management Association: Alexandria, Virginia, 1987.

Presentations Made:



Morris & McDaniel's response to RFP# 8300 EAD3012REBID due September 15, 2020 @ 2:00PM local time.

How Data can Improve Selection, Due Diligence, and Promotions - The Newest Personnel Science Rebuilding the Future Police. Invited Speaker by the Pearls of Policing Conference 2014, co-hosted by the Federal Bureau of Investigation, San Francisco, California, 2014.

Strengthening your Selection and Promotion will Strengthen your Police. Invited Speaker by the Nepal Police Command Staff, Kathmandu, Nepal, 2014.

For a More Stable and Secure Country, Improved Police Screening is a Must. Invited Speaker by the 17th Asia-Pacific Chapter FBINAA Retraining Conference, Kathmandu, Nepal, 2014.

Using New Screening & Promotional Procedures to Strengthen a Country's Internal Security. Invited to speak at the meeting of the Executive Committee of the Indonesian Police, Jakarta, Indonesia, 2013.

Using New Screening & Promotional Procedures to Strengthen a Country's Internal Security. Invited Speaker by the Inspector General of the Uganda Police Force, the Republic of Uganda, 2013.

Meeting the Challenge of Legally Defensible Selections and Promotions Which Yield Diversity. Invited Speaker by The Commission on Accreditation for Law Enforcement Agencies, Inc. (CALEA), Winston-Salem, North Carolina, 2013.

Recruitment and Due Diligence: Reshaping Police Human Resources. Invited Speaker by the International Criminal Police Organization's (Interpol) 82nd General Assembly, Cartagena de Indias, Colombia, 2013.

Meeting the Challenge of Legally Defensible Selections and Promotions Which Yield Diversity. Invited Speaker by the FBI NAA Annual Training Conference, Orlando, Florida, 2013.

Lessons Learned in War: Using New Screening & Promotional Procedures to Strengthen a Country's Internal Security Against Counter Terrorism. Invited Speaker by the 16th Asia Pacific Chapter FBI NAA, Bangkok, Thailand, 2013.

Solving the Diversity Problem in Promotional and Entry-Level Selections and Involving Stakeholders. Invited Speaker by the Fire Rescue International (FRI), Chicago, Illinois, 2010.

How to Conduct Promotional and Entry-Level Selections while Involving Stakeholders. Invited Speaker by the Fire Metro Chiefs 2010 Expo, Memphis, Tennessee, 2010.

Important Considerations for Conducting In-House Assessments for Selections and Promotions. Invited Speaker by the Massachusetts Municipal Personnel Association representing the International Public Management Association for Human Resources (IPMA-HR), Boxborough, Massachusetts, 2009.



Using Modern Assessment Techniques to Rebuild the Security Forces in War-Torn Iraq. Invited Speaker by the American Psychological Association, San Francisco, California, 2007.

Using Cross-Cultural Tests to Help Rebuild Iraqi Security Forces - Implications for Global HR Manager. Invited Speaker by the International Public Management Association for Human Resources, St. Louis, Missouri, 2007.

Using Cross-Cultural Tests to Help Rebuild Iraqi Security Forces - Implications for Global HR Manager. Invited Speaker by the Association of Test Publishers, Palm Springs, California, 2007.

Using Modern Assessment Techniques to Rebuild the Security Forces in War-Torn Iraq - Implications for Global HR Manager. Invited Speaker by the 33rd International Congress on Assessment Center Methods, London, England, 2006.

Selecting the Best: The Latest in State-Of-The Art Personnel Selection. Invited Speaker/Workshop by SHRM, Jackson, MS 2006.

Establishing the New Entry Level Police Screening Test for the Nation of Iraq. Invited Speaker by the Personnel Testing Council/Metro Washington, November PTC/MW Luncheon, Washington, D.C., 2004.

The Reconstruction of Iraq. Invited Speaker by the American National Standards Institute, ANSI Personnel Certification Summit, Washington, D.C., 2004.

Applicant and Employee Testing and Evaluation in Today's Legal Environment. Invited Speaker by the SMU Dedman School of Law, Labor and Employment Law Seminar, Hot Springs, Virginia, 2003.

Legal Issues in Assessment Centers and Other Performance-Based Assessments. Invited Speaker by the Grand Lodge Fraternal Order of Police, Phoenix, Arizona, 2001.

Occupational Assessment of Personality in Non-Pathological Populations and Assessment Issues, Techniques and Challenges in Occupational Evaluations. Invited Speaker by the Department of Psychology, Massachusetts Mental Health Center of Harvard Medical School, 2001.

Legal Implications of Some Selective Industrial/Organizational Psychology Practices. Invited Speaker at the Georgia Association of Psychology, Atlanta, Georgia, 2000.

Multiple-Choice In-Baskets for Management Assessment. Invited speaker at the International Congress on Assessment Centers, Orlando, Florida, 1999.

Effective Applicant and Employee Evaluation and Testing. Jackson, Mississippi, 1998.

Series of Personnel Seminars, 1986. Morris & McDaniel, Ltd., in conjunction with Morris & McDaniel, Inc., conducted a series of seminars on the following issues: "The Uses and Abuses of Selection Tests"; "Recent Developments in Assessment Centers"; and "Issues of Validity in Selection Testing." London, England.



Multiple-Choice In-Baskets for Management Assessment. Invited speaker at the International Congress on Assessment Centers, Toronto, Canada, 1991.

Legal Issues in the Selection Process. The International Association of Chiefs of Police, September 1990.

The New Legal Issues: Employment Testing and Assessment. American Management Association in San Francisco, California, April 1990.

Testing Economy and Usefulness. General Electric In-House Conference for Human Resource Managers, Charlotte, North Carolina, 1990.

Legal Issues in Testing and Assessment. The InSci User's Conference, Atlanta, Georgia, October 1990.

Using Assessment Centers as a Management Skills Audit. Invited speaker at the October International Training and Development Conference of the Management Centre Europe, in Brussels, Belgium, October, 1987.

Building Legal Defensibility into Selection Programs. American Psychological Association, Division for Industrial/Organizational Psychology, Continuing Education Program, August 1986.

EEO Guidelines and Psychological Testing. Louisiana Psychological Association Meeting.

The Role of a Consultant. Southeastern Conference for State Personnel Directors.

Getting the EEO Lightning Rods Out of Your Personnel Practices. Mississippi Association of City Clerks, Tax Assessors, and Collectors.

Tests Can Save You Millions of Dollars in Production. American Society of Public Administrators.

The Gathering of Storm Clouds in the Weber Decision. International Association of Personnel in Employment Security.

Personnel Law After Bakke. American Society of Public Administrators, annual meeting, 1978.

Psychologists in the Courtroom. The Louisiana Psychological Association convention, one-day workshop.

An analysis of the U.S. Supreme Court Decision on Bakke. International Association of Personnel in Employment Security, annual meeting, 1978.

Legal Experience: Case Preparation, Testimony

Technical assistance to Emory A. Plitt, Maryland Attorney General's Office, for negotiations involving the Black Trooper's Association.



Morris & McDaniel's response to RFP# 8300 EAD3012REBID due September 15, 2020 @ 2:00PM local

time.

Consultant to Threadgill and Smith, Attorneys at Law, for reviewing adverse impact analysis, promotional procedures, and selection procedures in anticipation of litigation.

Consultant to Sidney A. Bache, Attorney at Law, giving expert witness testimony in Federal Court regarding promotional and testing procedures.

Consultant to Rhonda Lustman, Attorney at Law, for reviewing consent decree and giving expert testimony in Federal Court regarding promotional and testing procedures and their effect on women.

Consultant to Dale Wilkes, Attorney at Law, for reviewing consent decree and giving expert testimony in Federal Court regarding promotional and testing procedures and their effect on Hispanics.

Consultant to Mississippi Attorney General's office for Title VII Lawsuit defense, assistance with data analysis, applicant flow analysis, test validation and expert witness testimony.

Technical assistance to Mitchell Engineering for review of selection procedures and applicant flow in anticipation of legal defense work.

Technical assistance to Seminole Manufacturing Company for review of recruiting procedures, selection procedures, promotional procedures, and adverse impact analysis in anticipation of legal defense.

Technical assistance to Threadgill and Smith, Attorneys at Law, for reviewing adverse impact analysis, promotional procedures, and selection procedures in anticipation of litigation.

Technical assistance to Sidney A. Bache, Attorney at Law, giving expert witness testimony in Federal Court regarding promotional and testing procedures.

Technical assistance to Rhonda Lustman, Attorney at Law, for reviewing consent decree and giving expert testimony in Federal Court regarding promotional and testing procedures and their effect on Hispanics.

Technical assistance to Johnston-Tombigbee Furniture Company for review of selection procedures, and various personnel practices, and adverse impact analysis in anticipation of legal defense.

Technical assistance to Attorneys for Arlington County, Virginia, in the defense of selection procedures.

Technical assistance to Attorneys for the Mississippi State Personnel Board for the defense of minimum qualifications.

Technical assistance to Attorneys for the City of Jacksonville, Florida, for defense of selection procedures.



Technical assistance to Attorneys and Management for the U.S. Park Service regarding the development of legally defensible selection systems.

Technical assistance to Attorneys for the City of Cleveland, Ohio, for presentation of validity evidence on personnel selection.

Technical assistance to Attorneys for the City of Rockville, Maryland, for defense of selection procedures.

The following are case citations and attorneys for use in the evaluation of legal support services provided by David Morris:

William Howe, et al. v. City of Akron, United States District Court for the Northern District of Ohio, Eastern Division, Case No. 5:06-CV-2779

Attorney: Aretta K. Bernard, Roetzel & Andress
(330) 849.6630
Patricia Ambrose, Assistant Director of Law and Interim Personnel
Director, City of Akron, Ohio
(330) 375-2030

Dwight Bazile, et. al. v. City of Houston, Texas, United States District Court Southern District of Texas, Houston Division, Case No. 4:08-cv-02404

Attorney: Lowell F. Denton, Denton Navarro Rocha & Bernal, P.C.
(210) 227-3243

United States v. City of Garland, Texas, United States District Court for the Northern District of Texas, Dallas, Division, Case No. 3:98CV-0307-L.

Attorney: Lisa Von Eschen, Latham & Watkins
(213) 891-7502

Barbara Arrington, et. al., v. Southern Pine Electric Power Association, Circuit Court of Smith County, Mississippi, Case No. 99-0002.

Attorney: Monte Barton, Copeland, Cook, Taylor & Bush
(601) 856-7200

Willie Morrow, et al. vs. Jim Ingram, Commissioner of Public Safety of Mississippi, et al., Civil Action Number 4716 (G)

Attorney: James W. Younger, Jr., Mississippi Department of Public Safety
(601) 987-1212

U.S.A. v. Jefferson County, Civil Action No.: CV-75-S-0666-S

Attorney: Anne R. Yuengert, Bradley, Arant, Rose & White LLP
(205) 521-8000

Deambra Brown, et. al. v. Kellogg Company, Kellogg USA, Inc., Case No. 8:98CV-383

Attorney: Bill Muth, Berens & Tate, P.C.
Christopher E. Hoyme, Berens & Tate
(402) 391-1991

Mulderig v. City of Philadelphia, CP, Civil Trial Division, No. 546.



Attorney: John C. Straub, former Chief Deputy City Solicitor
(215) 684-6176

Sara Beard v. The Mississippi State Department of Education, et. al., Civil Action No: 3: 94CV542BN

Attorney: Armin J. Moeller, Jr.
(601) 965-8156

United States of America et al., v. City of Montgomery, et al., Civil Action No. 3839-N:

Attorney: Thomas M. Goggans, Montgomery, Alabama
(334) 834-2511

Denise Chapman, Kenneth Donnell, Joseph Langston, Frederick Moore, Larry Robinson v. Brinker International Inc. d/b/a Chilli's Grill and Bar, and Grady's Inc., d/b/a Grady's American Grill, U.S. District Court, Southern District of Mississippi, Jackson Division, Case No. 3:95CV628LN.

Attorney: James D. Bell, Bell & Associates
(601) 898-1111

Cecil Hankins v. City of Philadelphia, U.S. District Court for the Eastern District of Pennsylvania.

Attorney: Howard Lebofsky, Deputy City Solicitor
(215) 685-5123

William P. Hammons, et al., v. Oscar Adams, et al.

Attorney: Louis L. Robein, Jr., Gardner, Robein, & Healey, New Orleans, Louisiana
(504) 885-9994 Analyzed applicant flow.

Massachusetts Association of Minority Law Enforcement Officers (MAMLEO) v. Boston Police Department, U.S. District Court; Docket No. 78-529-S. Court Presentation before Judge Walter Jay Skinner regarding Test Issues.

Attorney: John Albano,
(617) 951-8360

Larry Williams, et al. v. City of New Orleans, et al. Eastern District of Louisiana, No. 73-629, Section "G." Served as expert for four different interveners who were objecting to the Consent Decree for the New Orleans Police Department.

Attorneys: Sidney Bache, Rhonda Lustman, Lynn Wasserman, and Dale Wilkes
(504) 888-3700

Clinton W. Hammock, et al. v. City of Auburn, et al., U.S. District Court for the Middle District of Alabama, Eastern Division, Civil Action 87-V-680-E.

Attorney: Dudley Perry, Perry & Russell, Montgomery, Alabama
(334) 262-7763

Carolyn Jordan, et al. v. John Wilson, et al. U.S. District Court, Middle District of Alabama, Civil Action No. 75-19-N.

Attorney: Thomas M. Goggans, Montgomery, Alabama
(334) 834-2511



Thomas J. Wise v. Arlington County, Virginia, U.S. District Court, Civil Action 85-256-A.

Alice Anselmo v. Mayor and City Council of Rockville, Maryland, et al., U.S. District Court, Maryland District, Civil Action No. JFM-87-2311.

Attorney: Judith Catterton, City Attorney's Office
(301) 294-0460

Paul Carr et al. v. Massachusetts Department of Personnel Administration, Case Nos. G-461, 462, 463, 464, and 465. Before the Commonwealth of Massachusetts Civil Service Commission.

Attorney: Harold L. Lichten, Angoff, Goldman, Manning, Pyle, Wangner & Hiatt
(617) 723-5500

Administrative Hearing before the Akron Civil Service Commission, Re: Appeal for Tom Kelly and Jack Porter.

Attorney: Patricia Ambrose Rubright, Assistant Director of Law, Department of Law, City of Akron, Ohio
(216) 375-2030

Captain Alex Torres, et al. v. City of San Antonio Police Department, et al, U.S. District Court Western District of Texas, San Antonio Division, No. SA-94-CA-242.

Attorney: Reuben Campos, Figueroa, Barrera & Harvey, P.C.
(210) 227-3700

Emma Ruth Davis, Ollie Mae Hood, and Martha Ann Hood v. Lamar Manufacturing Company, Inc., District Court for the Northern District, Alabama, No. CV-80-HM-1215-J.

Attorney: Taylor Smith, Threadgill & Smith, Columbus, Mississippi
(662) 244-8824

Norma J. Mustin, for Herself and All Others Similarly Situated v. Four County Electric Power Association. Northern District of Mississippi, Eastern Division No. EC 81-280-W-P.

Attorney: Taylor Smith, Threadgill & Smith, Columbus, Mississippi
(662) 244-8824

Mississippi Council on Human Relations, Barbara Phillips, Cornell Green Rice, Patricia A. Catchings and Jim Davis Hull v. State of Mississippi Department of Justice of the State of Mississippi, A. F. Summer, Individually and in His Official Capacity as Attorney General of the State of Mississippi, U.S. District Court, Southern District, No. J-76-118-R.

Attorney: Mary Lawrence Gervin, Jackson, Mississippi
(601) 946-5566

Robert Parks, et al. v. Johnston-Tombigbee Furniture Manufacturing Company, U.S. District Court, Northern District, Mississippi, No. EC 78-174-S-O. Data Analysis and Applicant Flow Analysis.

Attorney: Taylor Smith, Threadgill & Smith, Columbus, Mississippi
(662) 244-8824



Grace Ann Ervin and Olive Stewart v. Johnston-Tombigbee Furniture Manufacturing Company, U.S. District Court, Northern District, Mississippi, No. EC 78-216-S-O. Data Analysis and Applicant Flow Analysis.

Attorney: Taylor Smith, Threadgill & Smith, Columbus, Mississippi
(662) 244-8824

Joe Durrah v. CECO Corporation D/B/A Mitchell Engineering Company, U.S. District Court, Northern District, Mississippi, No. EC 78-206-S-O. Data Analysis and Applicant Flow Analysis.

Attorney: Taylor Smith, Threadgill & Smith, Columbus, Mississippi
(662) 244-8824

United States v. City of Jackson, Mississippi, No. J74-66(N).

Attorney: Tim Hancock, City Attorney's Office
(601) 960-1799

Wade v. Mississippi Cooperative Extension Service, et al. (Analyzed Data Relevant to Consent Decree for Defendant's Attorney). Northern District, Mississippi.

Attorney: Mary Lawrence Gervin, Jackson, Mississippi
(601) 946-5566

United States v. Mississippi State Department of Public Welfare, et al. Dorothy Walles v. Mississippi State Department of Public Welfare, Northern District, Mississippi, No. GC 73-5-S.

Attorney: Mary Lawrence Gervin, Jackson, Mississippi
(601) 946-5566

Morrow v. Dillard, 580 FED 2nd 1284. (Conducted Post-Trial Validation Studies).

Attorney: Mary Lawrence Gervin, Jackson, Mississippi
(601) 946-5566

Ernestine Forest v. Mississippi Game and Fish Commission. EEOC charge No. TJA 6-0802. Analyzed Applicant Flow and Minimum Qualifications.

Attorney: Mary Lawrence Gervin, Jackson, Mississippi
(601) 946-5566

Wayne F. Latham, v. Mississippi State Tax Commission. Expert Witness in Federal Court, District Court for the Northern District of Mississippi, Greenville District No. GC82-132-WK-O. Provided expert testimony regarding minimum qualifications, i.e., age requirements.

Attorney: Mary Lawrence Gervin, Jackson, Mississippi
(601) 946-5566

Bessie Thompson v. Mississippi State Personnel Board, et al., Northern District, Mississippi No. GC82-203-WK-O. Analysis of Applicant Flow Data in order to provide defense for minimum qualifications.

Attorney: Mary Lawrence Gervin, Jackson, Mississippi
(601) 946-5566



New Orleans Fire Fighters Association Local 632, et al. v. City of New Orleans (1986 lay-offs within the New Orleans Fire Department using performance appraisals).

Attorney: Louis L. Robein, Jr.
(504) 885-9994

Robert G. Fowler v. McCrory Corporation, Southern District, Maryland No. JFM 87-1610.
Analysis of selection procedures and performance appraisal system.

Attorney: Jean M. MacHarg, Patton, Boggs, and Blow
(202) 457-5235

Francine Green v. Fairfax County School Board, et al. District Court for the Eastern District of Virginia, Civil Action No. 93-104-A.

Attorney: Charlson & Bredenhoff, Fairfax, Virginia
(703) 352-2340

David Anderson v. B.C. Rogers Poultry, Inc., Scott Circuit No. 10,390.

Attorney: Joe L. McCoy, McCoy, Wilkins, Stephens & Tipton, P.A.
(601) 366-4343

George Glover, Jr. and Loretta Glover v. Officer Charles Brenke, individually and in his capacity as an officer of the Lafayette Police Department, City of Lafayette Police Department and City of Lafayette, U.S. District Court, Western District of Louisiana, Lafayette-Opelousa Division. Civil Action CV 93-0510.

Attorney: Stephen Santillo, Glenn Armentor, Ltd.
(318) 233-1471

United Black Firefighters Association, et.al., v. City of Akron, et.al., United States District Court for the Northern District of Ohio, Eastern Division, Case No. 5:90CV-1678.

Attorney: Bonnie I. O'Neil, Thompson, Hine & Flory
(614) 469-3200

Caroline Burney v. Rhee Manufacturing Company, United States District Court for the Middle District of Alabama, Northern Division, Case No. CV97-D-1300-N.

Attorney: Henry C. Barnett, Jr., Capell, Howard, Knube & Cobbs
(334) 241-8059

ADA Assistance, Frank Cantrell, Attorney. (901) 754-8001

ADA Assistance, Mary Lawrence Gervin, Attorney. (601) 946-5566

Education:

Ph.D. University of Southern Mississippi, 1975
Psychology, specialization in Industrial/Organizational Psychology

J.D. Mississippi College School of Law, 1981
Attended the Hague Academy for International Law
(Hague, the Netherlands), 1985, 1986, and 1987 sessions

M.S. Mississippi State University, 1969



B.S. Psychology
 Millsaps College, 1967
 Psychology

Scholarships/Honors:

2007 IPMA Assessment Council, Certificate of Merit for Work in Iraq
1968-1969 Mississippi State University, Research Fellowship
1967-1968 Mississippi State University, Teaching Assistantship
1964-1966 Millsaps College, Football Scholarship
1963 Millsaps College, Scholastic Scholarship

Teaching Experience:

2001 Visiting Faculty at Harvard Medical School
 Contemporary Applications of Psychological Testing (April)
1978 Adjunct Faculty, University of Southern Mississippi
1973 Adjunct Faculty, Delgado College, New Orleans, Louisiana
1970-1972 Adjunct Faculty, Troy State University, Alabama
1969-1970 Teaching Assistantship, Mississippi State University, Psychology
 Department

Courses Taught (Graduate & Undergraduate):

Industrial/Organizational Psychology - University Southern Mississippi, 1978
Educational Psychology - Troy State University
Physiological Psychology - Troy State University
Introduction to Psychology - Delgado College, Mississippi State University

Professional Memberships:

American Psychological Association, Division 14
(Industrial/Organizational Psychology)
American Psychological Society
Association of Test Publishers
Diplomat American Board of Forensic Examiners
Mississippi Psychological Association
Southeastern Psychological Association
International Public Management Association (IPMA)
Personnel Testing Council of Metropolitan Washington
Mississippi State Bar Association
Society for Human Resource Managers
Society of Industrial and Organizational Psychology

Licensors:



Massachusetts State Psychology License - License number 7161
Louisiana State Psychology License - License number 387
Mississippi State Psychology License - License number 186-16
Mississippi Bar Association License – License number 3480

Military:

Vietnam Era Veteran, U.S. Army
Research for U.S. Army (1970-1972)

JOSEPH F. NASSAR
Vice-President
Project Coordinator

Education:

1976
Master of Public Administration, University of Mississippi.

1975
Bachelor of Science, Major: Criminal Justice, Delta State University.

Work

Experience:

January, 1977 to Present
Vice-President, Senior Staff Consultant, Morris & McDaniel, Inc.,
Management Consultants.

April, 1980 to June, 1983
Instructor in the Business Administration Department, Phillips College,
Jackson, Mississippi.

July, 1976 to September, 1976
Administrative Intern, Governor's Office of Human Resources, Jackson,
Mississippi.

Consulting

Experience:

Developed and conducted promotional examinations and assessment centers for the ranks of Law Enforcement and Corrections Lieutenant and Sergeant and Entry-Level Selection for the Palm Beach County Sheriff's Office, West Palm Beach, Florida.



Developed and conducted entry-level and promotional written examinations and assessment centers for the ranks of Fire Captain, Battalion Fire Chief, Deputy Fire Chief and Entry-Level Firefighters for the Kansas City Fire Department, Kansas City, Missouri.

Developed and conducted promotional written examinations and assessment centers for the ranks of Police Corporal, Sergeant, Lieutenant, and Captain for Norfolk Police Department and the ranks of Fire Captain and Battalion Fire Chief for Norfolk Fire Department for the City of Norfolk, Virginia.

Developed and conducted promotional written examinations and assessment centers for the fire suppression ranks of Fire Driver, Fire Lieutenant, Battalion Fire Chief, Air Crash Chief and Division Chief; for rank of Air Rescue Chief and EMS ranks of EMS Division Chief, EMS Battalion Chief, EMS Lieutenant; and for Fire Prevention ranks of Investigator, Inspector, Inspector Supervisor, Investigative Services Manager, and Fire Marshall, and for Fire Communication ranks of Watch Commander and Senior Fire Operator for Memphis Fire Department for the City of Memphis, Tennessee.

Developed and conducted promotional written examinations and assessment centers for the ranks of Lieutenant and Sergeant for the Tucson Police Department, Tucson, Arizona.

Development of entry-level law enforcement and correctional officer examination for law enforcement jurisdictions throughout the State of Florida.

Developed entry-level entrance examination process for Entry-Level Police Officer for the City of Philadelphia Police Department, Philadelphia, Pennsylvania.

Developed and conducted entry-level and promotional testing for law enforcement jurisdictions throughout the State of Georgia.

Developed and conducted promotional examination and assessment centers for Sergeant and Lieutenant for City of Boston, Massachusetts.

Developed written tests and promotional process for Detective for Boston Police Department, Boston, Massachusetts.

Conducted job analysis, developed and conducted written knowledge tests and promotional assessment centers for Captain, Lieutenant, and Sergeant for Boston Police Department.

Conducted job analysis, developed written knowledge test for Detective for Boston Police Department.

Conducted job analysis, developed and conducted written knowledge tests and promotional assessments for Captain, Lieutenant, and Sergeant for the Boston Police Department.

Conducted job analysis, developed and conducted promotional assessment centers for Captain, Lieutenant, and Sergeant for the Akron Civil Service Commission and Akron Police Department.



Conducted job analysis, developed and conducted promotional assessment centers for Fire Lieutenant, Captain, and Assistant Fire Chief for the Akron Civil Service Commission and Akron Fire Department.

Conducted job analysis, developed and conducted promotional assessment centers for Captain and Lieutenant for the San Antonio Police Department.

Conducted job analysis, developed written knowledge tests for the ranks of Captain, Lieutenant, Sergeant and Detective-Investigator and service based assessment exercises for the ranks of Captain and Lieutenant for the San Antonio Police Department.

Developed and implemented a statewide performance appraisal system for Mississippi State Personnel Board.

Developed performance-based merit pay system for state agencies for Mississippi State Personnel Board.

Developed and conducted promotional tests for Fire Ranks of Lieutenant, Captain, Battalion Chief, and Assistant Chief for Cleveland Fire Department, Cleveland, Ohio.

Developed and conducted assessment procedures for the ranks of Assistant Police Chief and Police Sergeant for the Little Rock Police Department

Conducted job analysis and developed written knowledge tests for the ranks of Police Lieutenant and Sergeant for the Harbor Police Department, Port of New Orleans.

Developed In-Basket exercise for the position of Administrative Assistant for Akron Civil Service Commission.

Developed Entry-Level Firefighter examinations for international market for International Personnel Management Association, Alexandria, Virginia.

Developed Written Tests and assessment centers for Captain and Lieutenant for Prince William Fire Department, Prince William, Virginia.

Developed and implemented assessment centers for the ranks of Sergeant, Lieutenant, and Captain for Consolidated Office of the Sheriff of the City of Jacksonville, Florida.

Developed assessment centers for the ranks of Corporal, Sergeant, First Sergeant, First Lieutenant, Second Lieutenant, and Captain for the Maryland State Police, Pikesville, Maryland.

Developed job-related aptitude Entry-Level Police examinations for Harbor Police for the Port of New Orleans, Louisiana.

Developed job-related aptitude Entry-Level Police examination for Orleans Levee Board, New Orleans, Louisiana.

Developed Entry-Level Written Test and oral examination for police recruits for the City of Laurel, Mississippi.



Developed and implemented performance appraisal system for statewide use for the Mississippi State Personnel Board.

Assisted in the organizational study for the Mississippi Department of Education.

Assisted in the organizational study for the Mississippi Department of Insurance.

Consultant to State Air and Water Pollution Control Commission (job analysis and job evaluations).

Conducted job evaluation of 40 jobs and organizational restructuring for Mississippi State Tax Commission.

Developed and conducted assessment process for the position of Detention Officer Supervisor and 911 Emergency Operations Supervisor for the Roswell, Georgia Police Department

Developed and conducted assessment centers for the ranks of Police Captain, Lieutenant and Sergeant for the Columbus, Georgia Police Department.

Developed and implemented organizational assessment and feedback questionnaire for Bank of Mississippi

Developed an assessment battery for the position of Bank Teller and Customer Service Representative for Deposit Guaranty National Bank.

Assisted the Mississippi Attorney General's Office for Title VII Lawsuit Defense Assistance with Data Analysis, applicant flow analysis, and test validation.

Assisted a National Engineering Firm for review of selection procedures and applicant flow in anticipation for legal defense work.

Consultant to Private Food Industry for personnel and management assessment.
Consultant to a Private Food Industry for identification of organization problems, staffing needs in supervisors, and employee turnover.

Scholastic

Honors:

1976 Pi Sigma Alpha (Political Science Honor Society).

1975 Who's Who in American Colleges and Universities.



time.



ROGER MCMILLIN, J.D.
Vice-President of Operations
Project Controller

Education:

New Albany High School
Graduated 1963

Mississippi State University
Graduated 1967, BA with honors

University of Memphis Law School
Graduated 1972, JD

Military:

Attended Naval Officer Candidate School, Newport, RI, 1967
Commissioned as Ensign

Served as Division Officer, Naval Security Group,
Principal duty station, NavRadSta, Sabana Seca Puerto Rico

Completed active duty tour September 1969.

Employment History:

Regional Attorney's Office, U.S. Department of Agriculture 1972 to 1976

Associate in law firm of Scott, Barbour and Scott, Jackson, MS 1976

Private law practice in New Albany, MS 1977 to 1994, principally as Partner in firm of
Sumners, Carter & McMillin

Served as City Attorney for City of New Albany 1982 to 1994

Elected to Miss. Court of Appeals November 1994 for term beginning January 1995

Served as Chief Judge of Court of Appeals from 1999 to 2004, retired from Court April
2004

General Counsel and Vice-President for Operations, Morris & McDaniel, Inc. May 1, 2004
to present.



LANA PRUDHOMME WHITLOW
Vice-President/Psychometrician
Senior Staff Consultant

Education:

2002-2004 – Doctorate of Philosophy in Psychology (Ph.D.)
Concentration: General Systems
Southern California University for Professional Studies
Santa Ana, California

1987-1989 – Master of Science (M.S.)
Major: Counseling Psychology
Concentration: Psychological Testing
University of Southern Mississippi
Hattiesburg, Mississippi

1983-1987 - Bachelor of Science (B.S.)
Major : Psychology
Minor: Sociology and Philosophy
Louisiana State University
Baton Rouge, Louisiana

Employment:

May 1990 to present

Morris & McDaniel, Inc.

Coordinates activities of the New Orleans office including all testing of private and public sector organizations. Director of Marketing for testing solutions for law enforcement. Responsibilities in New Orleans include psychological screening of police and fire applicants and data analysis, job analysis, job evaluation and organizational analysis.

October 1989 - Present

John Pleune, Ph.D., Clinical Psychologist

Private Practice - Part-time work with Dr. John Pleune as his testing assistant. Primary responsibilities; working with outpatient population in administering appropriate psychological tests and evaluating each client regarding the referral question. Consultant for NorthShore Psychiatric Hospital; interviewing inpatients and writing psychological evaluations regarding their treatment. These evaluations include a diagnosis of the presenting problem as well as treatment recommendations



September 1989 - February 1990

Ochsner Foundation Hospital

Department of Psychiatry - Psychometrician.

Primary responsibilities involved administration of psychological tests to inpatient and outpatient populations.

July 1989 - October 1989

NorthShore Psychiatric Hospital

Adolescent and Adult Units - Internship

Primary responsibilities involved conducting psychological testing and writing psychological evaluations for patients admitted to the Adolescent and Adult units. Consulted with and was supervised by John Pleune, Ph.D., and Glenda Clark, B.C.S.W. Co-leader for adult intimacy groups, involved in adolescent chemical dependency groups, and attended daily community meetings on these units.

August 1987 - May 1989.

Department of Counseling Psychology,
University of Southern Mississippi.

Primary responsibilities involved working under Dr. Daniel Randolph as his graduate assistant, teaching assistant and research assistant. These duties involved reference searches and library work, teaching assistance for mainly his undergraduate classes, as well as basic office responsibilities. Researching materials regarding Helping Professions and coordinated and presented lecture material for undergraduate classes.

January 1989 - May 1989

Department of Counseling Psychology,
University of Southern Mississippi.

Throughout this practicum responsibilities consisted of referrals from the courts or the office of Public Welfare; sexually abused children, adolescents with behavior or school problems, and adults with family and marital difficulties. Also responsible for intake evaluations and child sexual abuse evaluations in the counseling lab. The theoretical focus of this lab was mainly from an interpersonal perspective.

January 1989 - May 1989

Department of Counseling Psychology,
University of Southern Mississippi.

Responsibilities included co-leading a group of 12 counseling psychology graduate students to help them feel comfortable in disclosing feelings, dealing with problem areas in their personal lives, as well as teaching them how to be a group member.



August 1988 - December 1988

Department of Counseling Psychology,
University of Southern Mississippi.

Practicum responsibilities were to demonstrate competency in individual therapy, assessment and consultation. Clients consisted largely of students from the university population as well as non-students from the community.

Research Experience:

June 2004 – December 2004

Southern California University for Professional Studies

Doctoral dissertation study linking the independent relationship between a measurable work ethic dimension to law enforcement success within a police academy.

May 1988 - August 1988

University of Southern Mississippi.

Designed and implemented a project concerning the impact of an alcohol and drug abuse course, taught by Dr. John Alcorn, on drinking practices and attitudes about alcohol use and abuse among graduate psychology students. The study included a control and experimental group of student volunteers on the university campus. Pre-tests and post-tests, which were devised by the experimenter, were administered throughout the semester. Results have been used by the instructor to support the various intervention strategies.

January 1988 - May 1988

Forrest General Hospital

Testing children using various tests depending on the age of the child. The project was designed to investigate the effects of the birth of a second child into a family.



**JEFFREY S. RAIN, PH.D.
SENIOR STAFF CONSULTANT**

Education:

- 1991, Ph.D. Industrial/Organizational Psychology: Louisiana State University, Baton Rouge
Minors: Experimental Statistics and Clinical Psychology
- 1987, M.A. Industrial/Organizational Psychology: Louisiana State University, Baton Rouge
- 1985, B.A. Psychology: The Citadel, Charleston, South Carolina

SELECTED CONSULTING PROJECTS

Selection Criteria Development and Validation Projects:

Implementation of promotional testing process (operations-based performance assessment) for county fire rescue agency (2 ranks). 2010.

Development and Implementation of promotional testing process (written knowledge exam and operations-based performance assessment) for county fire rescue agency (4 ranks). 2008-2009.

Development and Implementation of promotional testing process for city fire department (rank of Fire Engineer). 2008.

Test equating and content validation study of three alternate versions of an entry-level law enforcement exam and an entry-level corrections officer exam conducted for contractor to State Department of Law Enforcement testing program, 2007 to 2010.

Content validation study of physical ability exam for entry-level firefighter for city fire department. 2006-2007.

Criterion validation study of multiple-choice in-basket management exercise conducted for personnel testing firm. 2005 to present.

Employment evaluations for sworn and non-sworn positions for law enforcement agency. 1993 to 2008.

Test equating and criterion validation of three alternate versions of an entry-level law enforcement exam and an entry-level corrections officer exam conducted for contractor to State Department of Law Enforcement testing program, 2004.

Criterion validation study of Iraqi entry-level police officer exam conducted for contractor to Civilian Police Assistance Training Team (CPATT), Office of Security Transition, 2003-2006.

Development and implementation of written knowledge exam and assessment center for Law Enforcement Officer-Sergeant promotion for law enforcement agency. 2004.



Development and implementation of written knowledge exam and assessment center for Law Enforcement Officer-Lieutenant promotion for law enforcement agency. 2003.

Development and implementation of written knowledge exam and assessment center for Corrections Sergeant & Corrections Lieutenant promotion for law enforcement agency. 2002 to 2003.

Development and implementation of written knowledge exam and assessment center for Law Enforcement Officer-Lieutenant for law enforcement agency. 2002 to 2003.

Development and implementation of written knowledge exam and assessment center for Law Enforcement Officer-Sergeant promotion for law enforcement agency. 2001.

Development and implementation of assessment center for Law Enforcement Officer-Sergeant promotion for law enforcement agency. 2000 to 2001.

Development and implementation of assessment center for Corrections Sergeant & Corrections Lieutenant promotion for law enforcement agency. 1999 to 2000.

Management selection assessment for position of President of public relations firm. 1999.

Norming and Validation study of a four-test hospital selection battery for entry-level positions. 1998 to 1999.

Validation Study of test battery for maritime transport company entry-level positions. 1998 to 2000.

Validation Study of written skills test for police officer. 1998

Validation of two parallel forms of writing skills test for police officer. 1998-1999.

Review promotion decision criteria for state police organization. 1998.

Workforce forecast, recruitment, and selection program development for manufacturing company. 1997.

Test validation and fairness analyses conducted for technology/defense contractor. 1996-1997.

Compliance review and development of employee policy and procedures for high-tech manufacturer. 1997.

Panel Interview conducted for selection of Executive Director of non-profit agency. 1996.

Training on validation of selection procedures for an entertainment organization. 1995.

Validation and EEO review of selection criteria for a public utility. 1995.

Development and validation of written promotion examination for Police Sergeant law enforcement agency. 1994 to 1995.



Morris & McDaniel's response to RFP# 8300 EAD3012REBID due September 15, 2020 @ 2:00PM local143 time.

EEO and Fairness analysis for entry level Fire Fighter examination for a city government. 1994.

Management selection assessment for position of President of public relations firm. 1993.

Testing and evaluation of job applicants for eight positions for a manufacturing company. 1992-1994.

Development and validation of a selection system for six production positions for manufacturing organization. 1992.

Review and analysis of the validity and legal defensibility of a selection system for a community college Police Academy. 1992.

Development and validation of a selection system for four entry-level positions for an electronics company. 1991-1992.

Litigation Consultations:

Expert Witness for Defense Attorney. Disparate impact case. Rainey, Kizer, Reviere & Bell. (Tennessee). 2006 to 2008.

Expert Witness for Plaintiff Attorney. Breach of contract. Gilpin & O-Keefe. (New Mexico). 2006.

Expert Witness for Defense Attorney. Disparate impact case. Berges et al. (Florida). 2000.

Consultation to Plaintiff Attorney. Disparate treatment case. Maxey, Wann, Begley & Fyke (Mississippi). 1999.

Consultation to Plaintiff Attorney. Disparate impact case. Maxey, Wann, Begley & Fyke (Mississippi). 1998 to 1999.

Professional Memberships:

American Evaluation Association (AEA)

American Psychological Association (APA).

International Personnel Management Association (IPMA-HR).

International Personnel Management Association Assessment Council (IPMA-AC).

Society for Human Resource Management (SHRM).

Society for Industrial and Organizational Psychology (SIOP).

Editorial Activities:

Publications Advisory Board Member, Public Personnel Management, 1996-2010

Reviewer, Society for Industrial and Organizational Psychology Annual Conference, 2004-2006



Reviewer, Human Relations, 2004-2005

Panel Reviewer, Drug-Free Communities Support Program, Juvenile Justice Resource Center (JJRC), FY2004

Panel Reviewer, U. S. Department of Justice, Drug-Free Communities Support Program, Juvenile Justice Resource Center (JJRC), FY2002

Panel Reviewer, U. S. Department of Education, Safe Schools/Health Students Initiative, Educational Resources (ESI), FY2001

Panel Reviewer, U. S. Department of Justice, Safe Schools/Health Students Initiative, Juvenile Justice Resource Center (JJRC), FY2001



MARK MINCY
Senior Staff Consultant

Education:

| | | |
|----------------|--|---|
| 1991 - 1995 | University of Central Arkansas Conway, Arkansas | B.S. Psychology |
| 1997 - 1999 | University of Arkansas at Little Rock Little Rock, Arkansas | M.A. Industrial/Organizational Psychology |
| 1999 - Present | University of Southern Mississippi Hattiesburg, Mississippi | PhD Industrial/Organizational Psychology – ABD |

Professional Experience:

2002 - Present Morris & McDaniel, Inc.
Staff Consultant

- Developing training initiatives for training current Morris & McDaniel employees in areas of Job Analysis, Law, Validation Strategies, Stress Management, Time Management, Personal Styles, Motivation, Communication Skills, and other management-related topics.
- Developing and delivering training programs for both the public and private sectors.
- Conducting a variety of training programs for and consults with agencies and also the private sector on issues ranging from customer service to communication, coaching and counseling, conflict resolution, negotiation, leadership, individual employee development, team building, and succession planning.
- Consult with clients, instructional designers, and media designers to develop innovative learning strategies and blended learning solutions.
- Managing the analysis, instructional design, project management and content development process for the production of the Morris & McDaniel Job Analysis Certification Program.
- Designing and producing learning solutions that include elements of knowledge sharing and knowledge capture tools, coaching tips, expert interview vignettes, action plan creation tools, assessment instruments, role player simulations, integrated discussion groups, collaborative learning tools and extensive, rich media reference material.
- Managing project teams of subject matter experts, educators, graphic designers, software programmers, technical support staff and marketing product managers in



the instructional design and development process: needs assessment, task analysis, lesson design, course production, assessment and implementation of training programs.

Professional Affiliations:

American Society for Training and Development
International Society for Performance Improvement
American Psychological Association
Society for Human Resource Management
Society for Industrial and Organizational Psychology
Psi Chi - (National Honor Society in Psychology)
Deming Institute



JUDITH GEOFFRIAU THOMPSON
Senior Staff Consultant/Licensed Psychometrist

Education:

Masters of Education, May 2001
Psychometry
Mississippi College, Clinton, MS

Bachelor of Science, May 1998
Education
Emphasis: Diagnostic Reading and Fine Arts
Belhaven College, Jackson, MS

Professional Experience:

Morris & McDaniel, Inc., 2000 - Present

- Conducts and assists with psychological evaluations for Protective Service organizations, including security positions in major airport. This task includes the design and structure of the psychological interview, conducting the interview, and consulting with a licensed psychologist, and writing the evaluation.
- Designs and develops ADA compliant valid job descriptions for a State personnel system, including conducting content validation strategies for the job descriptions.
- Designs and conducts performance based and assessment exercises for leadership development and assessment for numerous public sector organizations.
- Designs, conducts, and assists with organizational studies, including leadership assessment, re-organizational studies for several state agencies, including a state department of education, a state department for public welfare, a state department for public service (public utilities) regulation, and a state department for insurance regulation.
- Directs, designs, and serves as editor-in-chief for publishing material for leadership development, career development, study aides, and study guides.
- Designs and conducts Job analysis studies for numerous public and private sector positions.
- Develops and administers performance based exercises including traditional assessment center exercises, situational judgment exercises, scenario exercises, and scenario based multiple choice questions for many public sector organizations.
- Writes test items and conduct item analysis on ability, and knowledge based achievement tests.
- Writes and edits technical reports.
- Conducts statistical analyses of data.
- Writes and manages grants.



Thompson Consulting, 2002 - Present

- Administers I.Q., diagnostic, and career tests
- Develops behavior plans and study skill/educational plans

Hinds Community College, 2003 - 2004

- Taught Human Growth & Development course
- Taught General Psychology course

Jackson Public Schools, 1998 - 2000

- Taught 2nd grade at Davis Magnet School
- Taught Honors English at Chastain Middle School

Scholarships and Honors:

Mississippi College

- Graduated Cum Laude, 2001

Belhaven College

- Presidential Academic Scholarship, 1993-1998
- Honors Seminar, 1993-1997
- National Dean's List

Professional Affiliations:

National Association of Psychometrists

Licensors:

Mississippi State Psychometry License - License number 162738



KIMBERLY N. ANDERSON
Senior Staff Consultant/Licensed Psychometrist

Education:

- 2005-2009** Masters of Science in Counseling Psychology with an emphasis in Psychometrics
- 1997-2000** B.A. in Journalism with emphasis in Public Relations;
Minors in English and Psychology; University of Southern Mississippi
- 1995-1997** A.A. in Liberal Arts; Jones County Junior College

Professional Experience:

2000 - Present **Morris & McDaniel**
Staff Consultant

- Served as Project Manager for Quality Workforce Initiative Project with the Mississippi State Personnel Board
- Manages certification testing division
- Develops job analysis and written test review procedures
- Conducts job analyses and job observations
- Serves as liaison to departmental personnel for scheduling and coordination of meetings and assessments
- Facilitates technical conferences, written test review sessions, and exercise development and review meetings
- Develops and administers selection and promotional testing for fire service and departments as well as emergency medical services
- Writes technical reports
- Maintains effective public relations with state agencies and other public and private sector clients
- Assists in the coordination of Special Projects

Professional Affiliations:

Kappa Tau Alpha Journalism Honor Society
Public Relations Student Society of America
Gamma Beta Phi Honor Society
Golden Key Honor Society
Phi Theta Kappa Honor Society

Licensure:

Mississippi State Psychometry License - License number 207395



MOLLY C. MCDONALD
Staff Consultant

Education:

| | | |
|--------------------|---|-----------------|
| 1999 - 2001 | University of Southern Mississippi <i>B.A in Political Science, English minor</i> | Hattiesburg, MS |
| 1997 - 1998 | University of Alabama | Tuscaloosa, AL |

Professional Experience:

2003 – Present **Morris & McDaniel**
Staff Consultant

- Served as Assistant Project Manager for Quality Workforce Initiative Project with the Mississippi State Personnel Board
- Assists in the development and scoring of written knowledge-based and entry-level exams for government agencies and private sector organizations
- Participates in the development and administration of performance based assessments for police and fire departments
- Conducts job analyses through technical conferences
- Writes technical validation reports
- Maintains effective public relations with all Mississippi State agencies
- Writes and edits test items

Recognition and Honors:

University of Southern Mississippi

- National Dean's List
- Gamma Beta Phi Honor Society

University of Alabama

- National Dean's List
- Alpha Lambda Delta Honor Society



MAYRA M. PRADO
Staff Consultant

Education:

- | | | |
|--------------------|--|----------------------|
| 2012 - 2014 | Kansas State University | Manhattan, KS |
| | <i>M.S in Psychology, Industrial/Organizational Psychology</i> | |
| 2005 - 2009 | Belhaven University | Jackson, MS |
| | <i>B.S in Accounting, Business minor</i> | |

Professional History:

- | | |
|-----------------------|------------------------------|
| 2009 – Present | Morris & McDaniel |
| | Staff Consultant |

- Conducts job analysis studies for numerous protective service organizations.
- Analyzes data collected during job analyses to be used in reports.
- Develops and administers performance-based exercises for police and fire departments.
- Assists in the development and scoring of written knowledge-based and entry-level exams for government agencies and private sector organizations.
- Reviews technical reports to ensure quality and accuracy.
- Conducts statistical analyses of data.
- Translates documents to Spanish as needed.

Recognition and Honors:

Belhaven University

- Graduated with Cum Laude honors, 2009
- Accounting Club - President, 2008-2009 and Vice President, 2007-2008
- Achievement in Accounting Award – departmental award presented to one graduating senior
- Academic and Tennis Scholarship, 2005 – 2009



ELIZABETH WILSON
Staff Consultant

Education:

2006 - 2010 **University of Mississippi** Oxford, MS
B.A in Biology, Dual B.A. Degree in Psychology

Professional Experience:

2010 – Present **Morris & McDaniel**
Staff Consultant

- Develops job analyses and written test review procedures
- Conducts job analyses and job observations
- Serves as liaison to departmental personnel for scheduling and coordination of meetings and assessments
- Facilitates technical conferences, written test review sessions, and exercise development and review meetings
- Develops and administers performance based exercises including traditional assessment center exercises, situational judgment exercises, scenario exercises, and scenario based multiple choice questions for many public sector organizations
- Writes proposals

Recognition and Honors:

University of Mississippi

- Dean's List 2006, 2010
- Academic and Tennis Full Scholarship, 2006-2010
- Graduated with 4.0 Psychology GPA



GLENN S. GUIDRY ALLEN, M.S., M.Ed.
Staff Consultant

Education:

2004-2005 – Master of Education in (M.Ed.)
Major: Counseling & Personnel Services
University of Southern Mississippi
Hattiesburg, Mississippi

2002-2004 – Master of Science (M.S.)
Major: Sports Administration
Concentration: Sports Psychology
University of Southern Mississippi
Hattiesburg, Mississippi

1999-2002 - Bachelor of Science (B.S.)
Major: Psychology
University of Southern Mississippi
Hattiesburg, Mississippi

Employment:

October 2014 to present

Morris & McDaniel, Inc.

Assists in the development and scoring of written knowledge based and assessment center exercises for government agencies and private sector organizations

Reviews job analyses

Researches, writes, and produces new business proposals

July 2013 to November 2014

Mississippi State Hospital

Responsible for Orientation and Annual Training of all employees

Directing Annual Training Fair for over 2000 employees

Developing & implementing Annual Testing (online & traditional) for over 2000 employees

Demonstrated results in delivering effective training & effective collaborative relationships

Consults regularly with other departments in hospital, such as Public Relations

Certified Advanced MANDT Trainer and AHA BLS/Heartsaver Instructor

Presents regularly to over 50 staff weekly

Consults with executive staff on training issues

Maintained employee files to include certificates and training materials

Performed routine administrative duties applicable to Orientation & Annual Training

Nov 2008 to Feb 2013

Applied Technology Services

Training & Development:

Routinely provided training, coaching, and education to clients



Facilitated employee retention, increased job performance and effective employee/employer relations

Excelled at providing transitions services and support and job placement

Demonstrated a keen ability to design, develop, implement, and evaluate training plans and curricula

Utilized current Human Resources trends to guide services to clients

Need Assessments:

Identified & evaluated clients' interpersonal abilities, career development needs, life skills, academic preparedness

Made appropriate recommendations for improvements or referrals to other agencies based on individual evaluations

Utilized various assessment tools in determining KSAs

Provided routine counseling as part of the Needs Assessment Process

Determined areas of weaknesses & implemented individualized training goals to strengthen performance

Program Development Planning

Identified areas of program weaknesses & gaps in services

Assisted in formulation of policies, rules, regulations as necessary

Planned, directed, & coordinated activities in collaboration with state, federal, local agencies, employers, schools, & military personnel

Communicated written extensive case notes using CITRIX & other automated systems

Ensured compliance of program per government policies procedures

Updated files per Department of Labor standards

Public Relations/ Employer Development

Responsible for the cultivation & promotion of positive business community partnerships

Maintained effective public relations with state agencies & the public, including interpretation advocacy of company policy

Provided transition awareness events presentations to potential employers, schools, colleges, training programs

Routinely spoke & presented at meetings, conferences, social events

Served as community liaison of our agency for various agencies, organizations & companies

Recruited new employers for client placement

April 2006 - August 2008

Hinds Community College

Administration:

Managed, recruited, selected, supervised, trained, and evaluated eight professional staff

Developed & implemented Residence Life policies

Scheduled and conducted regular staff meetings

Formulated & established training goals based upon staff and department assessment outcomes

Designed, developed, & implemented staff training modules

Developed & adapted staff manuals, Performance Evaluations, Coaching/Discipline forms

Advised senior management of operations & human resource issues

Provided counseling, coaching, & discipline to professional staff



Coordinated & participated in weekend & holiday duty rotation
Supervised & evaluated the day-to-day operations of the Residence Life Department
Assisted in the coordination of department operations (opening/closing of buildings etc.)

Program & Student Development:

Managed, recruited, selected, supervised, trained, and evaluated 44 Resident Assistant staff
Provided counseling & termination to Resident Assistant staff
Coordinated day-to-day operations of the residence hall communities
Taught the Resident Assistant & Orientation Leader classes
Assisted staff in assessing resident needs and interests through use of surveys & discussions
Ensured that staff planned, coordinated, and implemented regular programs and projects based on Wellness Model
Evaluated and maintained accurate records of all Residence Hall programming
Submitted monthly and annual reports for residence halls to Director of Housing
Advised staff, residents, guests, alumni, administration, faculty, and parents
Advised the Residence Hall & Resident Assistant Council
Develop/conducted various surveys using internet & current software
Established & managed the performance awards for Resident Assistants
Directed & coordinated Student Housing Orientation

Professional Experience:

June 2005 to July 2005.

Learning Enhancement Center, Practicum Student,
University of Southern Mississippi.
Trained in software used by staff & faculty
Devised questionnaire for student focus groups
Organized & conducted focus group
Developed personal website using Dreamweaver
Developed online practice course shell using WebCT

June 2004 – July 2005

National Youth Sports Program, Program Assistant
University of Southern Mississippi.
Oversaw program under guidance of Program & Grant Director
Assisted in the hiring, training, & supervision of NYSP student staff
Advised Program Director, faculty & Grant Director of daily operations
Consulted with senior level administration on issues with parents & students
Coached & counseled student staff
Served as liaison for parents & guardians of program participants
Recorded data of program for USDA, & other federal government agencies
Data entry for future NYSP research
Organized existing data of NYSP information in meaningful manner

September 2004 - May 2005

Office of Disability Accommodations, Graduate Assistant,
University of Southern Mississippi.



Proctored student behavior during testing
Processed student exams for faculty grading
Scribed and/or read student exams
Retrieved & returned confidential exams to and from faculty
Provided escorts to vision impaired students across campus
Performed clerical duties

June 2003 - July 2003

National Youth Sports Program, Fitness & Nutrition Instructor
University of Southern Mississippi.
Instructed high-risk youth ages 10 through 16 in aerobics/weight training
Taught students how to calculate heart rate
Created skills tests to assess fitness/nutrition knowledge
Promoted health awareness through informational booklets I developed
Provided low cost healthy eating guidelines & recipes to students & families
Compiled data for future NYSP student attrition studies
Supervised two undergraduate assistants
Updated NYSP student records on days off

August 2002 - May 2004

Health & Human Performance, Teaching Assistant
University of Southern Mississippi.
Lectured undergraduate classes in Sport Psych
Performed literature searches & data entry
Proctored exams, graded tests & homework
Collected data for Dr. Maneval's Power-Pull Study in 2003

August 2002 - July 2003

Student Academic Enhancement Center, Graduate Assistant
University of Southern Mississippi.
Monitored student-athletes behavior during study hall hours
Assisted student-athletes in online registration for classes
Ensured student-athletes completed class work and homework assignments
Tutored psychology and sociology to student-athletes

June 2002 - July 2002

National Youth Sports Program, Drug & Alcohol Instructor
University of Southern Mississippi.
Taught drug and alcohol education to high-risk youth ages 10 through 16
Prepared daily work that educated students on consequences of drug use & abuse
Encouraged abstinence from drug use through focus groups, education, & games
Compiled and provided drug prevention information packets

April 2000 - Jan 2002

Office Staff/Server/Bartender
Copeland's Restaurant.
Interviewed & recommended for hire new wait & kitchen staff
Made out work schedules for all staff
Maintained & updated personnel files
Did background and reference checks on all new staff



Supervised staff
Hired and trained all new staff
Coached & terminated staff as needed
Responsible for payroll and bank deposits
Served Food, Consistently in top 5%
Bartended

Scholarships/Honors:

Dean's List, University of Southern Mississippi, (Dec 2000)
August 2004 to August 2005
President –College Student Personnel Association
August 2003 to May 2004
Social Chair –Sport Professional Student Association

Professional Achievements:

Reduced Non-Compliance of Staff Training in Annual Training fair (Mar
2014) from over 400 non-compliant staff to less than 90 in one year.
Nominated for Life Star Award, Hinds Community College (Dec 2007)
NYSP Fitness Program Implemented Nationally, (July 2003)

Teaching Experience:

2006-2008 Adjunct Faculty, Residence Life, Hinds Community College
2002-2004 Teaching Assistantship, University of Southern Mississippi,
Health & Human Performance Department

Courses Taught (Graduate & Undergraduate):

Educational Leadership, Residence Life, Hinds Community College
Introduction to Sport Psychology - University of Southern Mississippi
Introduction to Sport Administration
Sport Law - University of Southern Mississippi

Professional Memberships:

National Association for Talent & Development
Mississippi Association for Training & Development
National Association of Student Affairs Professionals

Professional Activities:

Graduate Career

Mississippi Association of Student Affairs Professionals Conference
Basic Supervision Student Affairs Course
Train the Trainer Course
Assisted in the 2005 University Southern Mississippi Sport Law Conference
Attended Recreation Inclusion Conference

Undergraduate Career

First Aid Certified, American Red Cross
Observed ADHD Clinic under Dr. Joe Olmi
Participated in Graduate Level Practicum under Dr. Joe Olmi
Volunteer reader for children at Books-A-Million



ADAM LESTER
Information Technology Director

Employment History Morris & McDaniel, Inc., 2013 - present
Adcom Technologies; Founder, CEO/President, 2004 - 2013
Computer Works, LLC; Vice-President, 2010-2013
HD Entertainment and Gaming, Vice-President Operations, 2009-2010
Hallmark Security, Project Manager/Installation & Service Manager 2003-2004
CDE Integrated Systems, Voice & Data Technician, 2002-2003
MCI Worldcom, Network/Telecom Technician, 2000-2002

Qualifications & Affiliations MCSE-Microsoft Certified Solutions Expert
CCNA- Cisco Certified Networking Associate
Krone TrueNet Certified
Certified Ram IV Remote Programmer
Dell Certified Systems Engineer
Comptia Network +
Comptia A+
Comptia Security +
CFOT- Certified Fiber Optic Technician

Areas of Expertise

IT strategic and operational planning, information systems security, web development and database management.

Selected Assignments

Assisted in the implementation of technology and security improvements to one of the Defense Department's most powerful supercomputer centers, located at Stennis Space Center, Mississippi.

Worked in conjunction with the U.S. Department of Homeland Security to secure the McCoy Federal Building, U.S. Federal Courthouse and several Internal Revenue Service and Social Security Administration offices located across Mississippi.

Assisted in the re-engineering of MCI WorldCom's data network.

Managed a project to upgrade voice and data systems for the City of Jackson Emergency Communications Center and also made vast improvements to the data network of The City of Oxford.

Provided consulting, design, project management, and support services to large corporations including Eaton Aerospace, Nissan, Dell, Wal-Mart, and Target.



APPENDIX E

Sample Entry-Level Firefighter Exam, Answer Key, and Answer Sheet



SAMPLE ANSWER KEY

Examples of Mathematical Computation Questions

| Q. # | Ans. |
|------|------|
| 1 | B |
| 2 | A |

Example of Memorization Questions

| Q. # | Ans. |
|------|------|
| 1 | A |

Examples of Mechanical Reasoning Questions

| Q. # | Ans. |
|------|------|
| 1 | D |
| 2 | B |

Example of Observational Judgment Questions

| Q. # | Ans. |
|------|------|
| 1 | D |

Example of Spatial Orientation Questions

| Q. # | Ans. |
|------|------|
| 1 | C |

Examples of Spatial Scanning Questions

| Q. # | Ans. |
|------|------|
| 1 | C |
| 2 | A |



ENTRY-LEVEL FIREFIGHTER EXAM
PART 1

Candidate ID #

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
|--|--|--|--|--|--|

| | | | | | |
|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 | 8 |
| 9 | 9 | 9 | 9 | 9 | 9 |
| 0 | 0 | 0 | 0 | 0 | 0 |

Last Name

[illegible][illegible]

First Name

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | A | A | A | A | A | A | A |
| B | B | B | B | B | B | B | B |
| C | C | C | C | C | C | C | C |
| D | D | D | D | D | D | D | D |
| E | E | E | E | E | E | E | E |
| F | F | F | F | F | F | F | F |
| G | G | G | G | G | G | G | G |
| H | H | H | H | H | H | H | H |
| I | I | I | I | I | I | I | I |
| J | J | J | J | J | J | J | J |
| K | K | K | K | K | K | K | K |
| L | L | L | L | L | L | L | L |
| M | M | M | M | M | M | M | M |
| N | N | N | N | N | N | N | N |
| O | O | O | O | O | O | O | O |
| P | P | P | P | P | P | P | P |
| Q | Q | Q | Q | Q | Q | Q | Q |
| R | R | R | R | R | R | R | R |
| S | S | S | S | S | S | S | S |
| T | T | T | T | T | T | T | T |
| U | U | U | U | U | U | U | U |
| V | V | V | V | V | V | V | V |
| W | W | W | W | W | W | W | W |
| X | X | X | X | X | X | X | X |
| Y | Y | Y | Y | Y | Y | Y | Y |
| Z | Z | Z | Z | Z | Z | Z | Z |

| | | | | |
|--------------|--------------|--------------|---------------|---------------|
| 1 A B C D E | 26 A B C D E | 51 A B C D E | 76 A B C D E | 101 A B C D E |
| 2 A B C D E | 27 A B C D E | 52 A B C D E | 77 A B C D E | 102 A B C D E |
| 3 A B C D E | 28 A B C D E | 53 A B C D E | 78 A B C D E | 103 A B C D E |
| 4 A B C D E | 29 A B C D E | 54 A B C D E | 79 A B C D E | 104 A B C D E |
| 5 A B C D E | 30 A B C D E | 55 A B C D E | 80 A B C D E | 105 A B C D E |
| 6 A B C D E | 31 A B C D E | 56 A B C D E | 81 A B C D E | 106 A B C D E |
| 7 A B C D E | 32 A B C D E | 57 A B C D E | 82 A B C D E | 107 A B C D E |
| 8 A B C D E | 33 A B C D E | 58 A B C D E | 83 A B C D E | 108 A B C D E |
| 9 A B C D E | 34 A B C D E | 59 A B C D E | 84 A B C D E | 109 A B C D E |
| 10 A B C D E | 35 A B C D E | 60 A B C D E | 85 A B C D E | 110 A B C D E |
| 11 A B C D E | 36 A B C D E | 61 A B C D E | 86 A B C D E | 111 A B C D E |
| 12 A B C D E | 37 A B C D E | 62 A B C D E | 87 A B C D E | 112 A B C D E |
| 13 A B C D E | 38 A B C D E | 63 A B C D E | 88 A B C D E | 113 A B C D E |
| 14 A B C D E | 39 A B C D E | 64 A B C D E | 89 A B C D E | |
| 15 A B C D E | 40 A B C D E | 65 A B C D E | 90 A B C D E | |
| 16 A B C D E | 41 A B C D E | 66 A B C D E | 91 A B C D E | |
| 17 A B C D E | 42 A B C D E | 67 A B C D E | 92 A B C D E | |
| 18 A B C D E | 43 A B C D E | 68 A B C D E | 93 A B C D E | |
| 19 A B C D E | 44 A B C D E | 69 A B C D E | 94 A B C D E | |
| 20 A B C D E | 45 A B C D E | 70 A B C D E | 95 A B C D E | |
| 21 A B C D E | 46 A B C D E | 71 A B C D E | 96 A B C D E | |
| 22 A B C D E | 47 A B C D E | 72 A B C D E | 97 A B C D E | |
| 23 A B C D E | 48 A B C D E | 73 A B C D E | 98 A B C D E | |
| 24 A B C D E | 49 A B C D E | 74 A B C D E | 99 A B C D E | |
| 25 A B C D E | 50 A B C D E | 75 A B C D E | 100 A B C D E | |

APPENDIX F

Sample Structured Oral Interview, Scoring Standards, and Rating Form



SAMPLE QUESTION 1

You are a salesperson at a large furniture store. As you are leaving work for the day, you notice smoke coming from the warehouse exhaust fan and from a seam in the siding near the top of the building. A truck is being unloaded and it seems that the workers are unaware that anything might be wrong. The smoke coming from the building is gaining in intensity and volume. You know that there are a few people in the building. You are not a trained firefighter and you have no special equipment with you.

What action, if any, would you take and why?

SAMPLE STANDARDS FOR QUESTION 1

Clearly Unacceptable

- _____ Rushes toward the emergency without any notification. **DM, PI**
- _____ Rushes toward the emergency with the others to help or look. **DM, PI**
- _____ Allows others to continue towards the emergency into danger. **DM, PI, SO**
- _____ Attempts to rescue victims without notification. **DM, PI**
- _____ Makes no effort to notify the Fire Department. **DM, PI**
- _____ Does nothing about crowd control.
- _____ Shows no concern for the welfare of citizens involved. **SO**

Clearly Acceptable

- _____ Questions others about whether Fire Department has been notified. **DM, PI**
- _____ Attempts to stop others from entering the danger area. **DM, PI, SO**
- _____ Goes to the nearest phone and calls the Fire Department. **DM, PI**
- _____ Sends someone else to call the Fire Department. **DM, PI**
- _____ Alerts bystanders to stand away from accident (heavy smell of smoke). **DM, PI, SO**

Clearly Superior

- _____ Notes the exact address and location of the emergency and provides this information to the Fire Department even if someone else says that they have called. **DM, PI**
- _____ Prevents others from becoming endangered. **DM, PI, SO**
- _____ Calls those who are in the danger area into a safe area. **DM, PI, SO**
- _____ After notification, attempts to rescue those victims that can be safely rescued. **DM, PI, SO**
- _____ Indicates they would meet fire department on their arrival to give additional information. **DM, PI, SO**

SAMPLE QUESTION 2

You work for a bus transportation service. Your job is to provide general maintenance to all buses upon arrival to the station. Today has been an exceptionally hectic day as several of your crew has called out sick. You have been working non-stop all day when you receive a call from your relief stating his wife has just been in an accident and will not be able to come in. Your supervisor is on vacation.

What action, if any, would you take and why?

SAMPLE STANDARDS FOR QUESTION 2

Clearly Unacceptable

- ☐ Becomes very angry. **DM, SO**
- ☐ Thinks that because it is not his shift he does not feel it is necessary to help. **DM, PI, SO**
- ☐ Does not try to contact anyone to cover his relief's shift. **DM, PI, SO**
- ☐ Is reluctant to help or is unsure if he/she should pitch in. **DM, SO**
- ☐ Indicates he will help only after the person makes an effort to cover his shift. **DM, SO**
- ☐ Leaves. **SO**

Clearly Acceptable

- ☐ Offers to help. **DM, SO**
- ☐ Stays, but does not offer to call anyone in to cover shift. **DM, SO**
- ☐ Helps but does not inform any supervisor of the situation. **DM, SO, PI**
- ☐ Indicates he is not sure what the appropriate procedures are, but would assist in getting the shift covered. **DM, PI, SO**

Clearly Superior

- ☐ Without hesitation, does whatever is necessary to help. **DM, SO**
- ☐ Stays until the shift covered. **DM, SO**
- ☐ After informing other crew members, happily pitches in until the shift is covered. May make a pot of coffee or other gesture of teamwork. **DM, SO**
- ☐ Indicates concern for co-worker's wife. **SO**

In all categories, other appropriate action should be graded appropriately.

SAMPLE ORAL COMMUNICATION STANDARDS FOR QUESTIONS 1 & 2

Clearly Unacceptable

- _____ Candidate mumbles, repeats him/herself and not for the sake of emphasis.
- _____ Tends to trail off at the end of the sentence and is hard to hear.
- _____ Uses poor grammar and sentence structure.

Clearly Acceptable

- _____ Candidate is clear, understandable.
- _____ Has very few distracting oral mannerisms, i.e., does not say, “uh,” “um,” or “you know,” a lot.

Clearly Superior

- _____ Candidate has easy flow of information, i.e., does not keep stopping and going back over information he/she just covered.
- _____ Uses proper grammar.
- _____ Use of vocabulary is concise and effective.

**ASSESSMENT COUNCIL ACTIVITIES
SAMPLE RATING FORM**

STRUCTURED ORAL PROCESS

Candidate Number: _____

Date: _____, 2015

Assessor#: _____ Panel Letter _____

Instructions: Write in the letter which represents the category of performance for the candidate in each question under each dimension. Then determine an overall numerical score for each dimension. Then, as a group, determine a final overall numerical score for the candidate based on his or her overall performance. Assessors must come within one full scale point of agreement.

| CANDIDATE PERFORMANCE DIMENSION SAMPLE | | | | |
|---|---|-----------------------------|-------------------------|-----------------------|
| SCENARIO | PROBLEM ANALYSIS AND DECISION MAKING | TEAMWORK AND COOPERATION | INTERPERSONAL SKILLS | ORAL COMMUNICATION |
| Scenario 1 | | | | |
| Scenario 2 | | | | |
| Scenario 3 | | | | |
| Assessor's Overall Numerical Score | | | | |

Team Overall Numerical Score

Instructions: Write in the exact number that the team decides on through the consensus method.

- _____ 4.1 – 5.0 Clearly Superior (CS)
- _____ 3.1 – 4.0 Good (G)
- _____ 2.1 – 3.0 Clearly Acceptable (CA)
- _____ 1.1 – 2.0 Needs Improvement (NI)
- _____ 0.1 – 1.0 Clearly Unacceptable (CU)

Assessor Signature

REMEMBER TO RECORD THE CANDIDATE'S OVERALL RATING

APPENDIX G

NELF Selection Process Written and Oral Components – Summary of Criterion – Related Validity Results and 2015 Austin Fire Department Criterion – Related Validation Study



Austin Fire Department
Criterion-Related Validation Study
2015 Entry-Level Firefighter Selection Process

Prepared by:

Morris & McDaniel, Inc.
117 South Saint Asaph Street
Alexandria, Virginia 22314

September 2018



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- D. Supplemental Performance Appraisal Rating Instrument
- E. Supervisor Performance Observation Form



**Austin Fire Department
Criterion-Related Validation Study
2015 Entry-Level Firefighter Selection Process**

Under our contract with the City of Austin and in keeping with our philosophy of test development and validation as an on-going iterative process, Morris & McDaniel is pleased to provide this report describing additional validation support for the 2015 Austin Fire Department entry-level firefighter selection process. Specifically, this report presents local criterion-related validation and freedom from bias results that supplement previously demonstrated validity and fairness outcomes. As an organizational tool, references to relevant sections of the Uniform Guidelines on Employee Selection Procedures (1978) are used in this report and hereafter referred to as "Guidelines."



USER, LOCATION, AND DATE OF STUDY [SECTION 15B(1)]

Morris & McDaniel conducted the City of Austin's 2015 Entry-Level Firefighter selection process consisting of two components, a Written Exam (Cognitive) and a Structured Oral Process (SOP). A third component, a Non-Cognitive/Behavioral written exam also was administered on an experimental basis.

The overall entry-level firefighter selection process conducted in Austin comprised additional components. While not central to the purpose of this report, the additional components are mentioned herein because they have relevance for the validity supporting the selection components administered by Morris & McDaniel.

To recap the relevant locations and dates encompassed in this report, we provide the following summary.

Administration of Written Exam

The Written Exam was administered September 22 and 23, 2015. Candidates were provided with the exam instructions and were given 25 minutes to study the pre-test study booklet and 3 hours and 15 minutes to complete the exam. All responses were recorded on machine-readable answer sheets.



Administration of SOP

The SOP was administered on November 7 and 8, 2015. Candidates were provided a candidate orientation on the day of the assessment and were given the exact instructions before being escorted to their respective classroom for assessment. Candidate responses were video recorded. Candidates had four minutes to prepare and respond to each of the three scenarios.

Collection of Criterion Data

Criterion data was collected on various dates beginning in 2017.

Criterion data relating to Fire Academy performance was collected from Human Resources on various dates between February and November 2017. Fire Academy criterion data included, but were not limited to pre-screening information, Fire Academy performance, performance on certification examinations, and supplemental performance ratings from Fire Cadet mentors.

Criterion data reflecting performance during firefighters' probationary period were collected in December 2017, February 2018, and July 2018. Probationary period criterion data included ratings on AFD's Probationary Performance Evaluation forms and supplemental performance ratings.

Fire Academy and probationary period supplemental performance ratings were collected in-person by Morris & McDaniel staff. All other performance criteria were transmitted electronically by AFD staff.



PROBLEM AND SETTING [SECTION 15B(2)]

Under the Guidelines, evidence of a selection procedure's validity can be demonstrated by examining empirical evidence of the relationship between applicant test scores and important job performance criteria. Empirical evidence is established via a study that correlates assessment scores with job performance criteria. If the correlation coefficients are statistically significant, the relationship supports the validity of the selection procedure. Further, the strength of that validity support, which is determined from the size of the correlation, denotes the test scores' practical value in predicting job performance. As described in *Testing and Assessment: An Employer's Guide to Good Practices* (U.S. Department of Labor, 2000), validity coefficients greater than .21 are "likely to be useful," whereas correlations greater than .35 are considered "very beneficial."

The purpose of this report is to provide local validation results for the Morris & McDaniel's entry-level firefighter selection process conducted for the City of Austin in 2015 (i.e., specific to the Austin Fire Department's 2015 hiring cycle). Specifically, the new local validation data is from the pool of candidates who completed the assessment components (i.e., tested sample). Criterion data was collected at various phases of the candidates' matriculation from the tested sample to the eligible candidate pool, through the Fire Academy, and as post-hire firefighters.

The applicant flow through the hiring process is depicted on the following page, as it pertains to the validation study.



Table 1. Applicant Retention across Hiring Phase.

| Hiring Phase | Total | Regular Candidates (Passed Testing) | Priority Hires (Administrative advance) |
|---------------------------------|------------------|---|--|
| Assessment Phase | 301 ^A | 202 Top Scoring Candidates ^B | 99 Priority Hire Candidates |
| Pre-Hire Screening Phase | 278 (92.3%) | 188 (93.1%) Were Vetted | 90 (90.9%) Were Vetted |
| | 112 (40.3%) | 79 (42.0%) Accepted Offer | 33 (36.7%) Accepted Offer |
| Fire Academy Phase | 97 (86.6%) | 77 (97.5%) Started | 20 (60.6%) Started |
| | 87 (89.7%) | 70 (88.6%) Completed | 17 (85.0%) Completed |

^A Sample does not include three candidates held over from the 2013 Entry-Level Selection process.

^B Top Scoring defined as having composite score plus military points equal to or greater than 84.5. An initial total of 124 candidates were identified as potential priority hires; however, the scores for 25 of those candidates placed them in the Top Scoring group, leaving 99 candidates (who did not score equal to or greater than 84.5) in the Priority Hire group.

Inspection of the above information reveals broad changes in the distribution as candidates matriculated through the process. Comparing the hiring phases, the retention was lowest (40.3%) at the end of the Pre-Hire Screening phase. Retention rates between Top Scoring and Priority Hire candidates also differed. Top Scoring candidate retention rates were higher than the retention rates for Priority Hires at each hiring phase. The largest difference in retention rates between the two candidate groups occurred at the start of Academy training. More



Regular candidates (97.5%) began the Academy compared to the number of Priority Hire candidates starting training (60.6%).

Comparing overall retention rates, more Regular candidates successfully completed Academy training (34.15% or 70 out of 202) than Priority Hire candidates (17.17% or 17 out of 99). Chi-square tests results revealed the retention of Regular candidates was significantly higher [$\chi^2 = 9.88, p = < .01$].

For the remainder of this report, our analyses focus on the combined total applicant sample ($n = 301$).



JOB ANALYSIS OR REVIEW OF JOB INFORMATION [SECTION 15B(3)]

All selection procedures administered by Morris & McDaniel were job-related based on content validity evidence. Detailed job analysis information supporting the content validity of Morris & McDaniel's selection procedures for screening Austin's entry-level firefighter applicants was presented in prior reports and, therefore, is not duplicated here. The remainder of this report presents further evidence of the selection procedures' benefit by demonstrating criterion-related validity.



JOB TITLE AND CODE [SECTION 15B(4)]

For reference purposes, we provide the Standard Occupational Classification (SOC) job title and code applicable to Austin's entry-level firefighter position (National Center for O*NET Development, 2015).

Municipal Firefighter 33-2011.01

We note that the Guidelines suggest presenting position information from the Dictionary of Occupational Titles (DOT) however, the O*NET system replaced the DOT in 2001. A copy of the O*NET Firefighter job description is presented in Appendix A.



CRITERION MEASURES [SECTION 15B(5)]

Criteria used for this validation study consisted of ratings of Fire Cadet (née candidate) performance in the Fire Academy and firefighter performance during their 6-month probationary period. Table 2 (below) provides an overview of the criterion measures used in the analysis. Following that, criterion measures are described in detail.

Table 2. Overview of Criterion Measures

| Criterion Measure | Measure Description |
|---|---|
| Fire Academy Performance | |
| Academy Score | Total of Cadet Manual Quiz (maximum of 5 percentage points), EMT Block (maximum of 47.5 percentage points), and Fire Block (maximum of 47.5 percentage points). Score range: 0 – 100. |
| Mentor Performance Rating Score | Average of Mentors' rating of Fire Cadet performance across 30 job-related facets of performance using a 10-point scale converted percentage points. Score range: 0 – 100. |
| Combined Academy Criterion Score | Total of Academy Total (maximum of 20 percentage points) and Mentor Performance Rating Score (maximum of 80 percentage points). Score range: 0 – 100. |
| Probationary Period Performance | |
| Probationary Firefighter Evaluation Score | Average of 27 performance ratings (3-point scale) made across six training modules during 6-month probationary period, converted to 100 points. Score range: 0 – 100. |
| Supplemental Performance Appraisal Rating Score | Average supervisor rating of firefighter's probationary performance across 30 facets of job performance using a 10-point scale, converted to a 100-point scale. Score range: 0 – 100. |
| Supervisor Performance Observation Score | Average supervisor rating from the 16-item Performance Observation form. Score range: 0 – 100. |

Note: Results from all criterion measures were expressed as percentages based on their respective scale's maximum possible points.



Fire Academy Performance

Fire Academy Performance data were obtained from two sources: Fire Academy scores and Academy mentor ratings of Fire Cadet performance. A third measure was formed by combining Academy scores and mentor ratings.

Academy Score. Fire Academy scores for 93 Fire Cadets were obtained from Department records. These scores represented the candidate's cumulative score across fire fighting and emergency medical treatment information presented to them during the Fire Academy. Specifically, the Academy Score represented the weighted sum of three Academy components (out of 100 points), where knowledge of the Cadet Manual, Emergency Medical Treatment, and Fire Fighting accounted for a maximum of 5 points, 47.5 points, and 47.5 points, respectively.

Reliability of the Academy scores were estimated from the internal consistency of scores achieved in sub-content areas of Fire Fighting and Emergency Medical Training (EMT). Individually, the Fire and EMT components yielded reliability estimates of .87 and .73. For the composite Academy score, reliability using Mosier's Composite Reliability was calculated at .87.



Mentor Performance Rating Score. Supplemental performance ratings for 93 Fire Cadets were obtained from Fire Cadet Mentors. The supplemental performance rating instrument elicits ratings for 30 job performance facets. It covers specific behaviors exhibited by individuals necessary to succeed in the Academy and once in the job of firefighter (e.g., following safety guidelines, adherence to oral and written instruction, teamwork, working in stressful situations, adaptability). In addition, the supplemental performance rating instrument included a global performance item. Ratings were made on a 10-point scale. This form was an adaptation of the Supplemental Experimental Performance Rating Instrument that Morris & McDaniel uses for other validation studies. A copy of the Mentor Performance rating form is presented in Appendix B.

Prior to obtaining these ratings, Morris & McDaniel staff trained mentors on the use of a supplemental performance rating instrument. The training covered common rating errors and remedies for avoiding them, an explanation of the rating form and its use as well as practice use of the form. Morris & McDaniel staff facilitated the Fire Cadet rating session and monitored mentor progress completing the forms.

Ninety-three ratings from 14 mentors were obtained. Six mentors provided ratings for all Fire Cadets from Class 119, four mentors rated all Class 120 Cadets, and Cadets in Class 121 were rated by five mentors. With one exception (i.e., one mentor rated Cadets in both Class 119 and Class 120), there was no overlap in mentors between the three Academy Classes.



For each item, ratings were made on a 10-point scale, with anchors provided at both ends of the scale and in the middle. The average mentor rating across the 30-item instrument, converted to a percentage, was used for the analysis (Mentor Performance Rating Score).

Two estimates of reliability were calculated for the 30-item supplemental ratings, internal consistency (Cronbach Alpha) and Intra-class Correlation Coefficients (ICC). Cronbach Alpha reliability for the Supplemental Performance Global was calculated at .99 and the ICC was .77.

Combined Academy Criterion Score. The third criterion measure (Combined Academy Criterion Score) combined the Total Academy Score and the Mentor Performance Rating Score, where the scores contributed a maximum of 20 points and 80 points, respectively. The valuation of components for the Combined Criterion Score matched the valuation of components that formed the Combined Predictor Score.

Other Fire Cadet Performance Indices. Three additional indices of Fire Cadet performance were obtained: scores for the Texas Commission on Fire Prevention (TCFP) certification exam, scores on the Clinical Operating Guidelines (COG) and pass/fail results for the National Registry of Emergency Medical Treatment (NREMT) certification exam. Passing these certification exams was a prerequisite for employment as a firefighter. Candidates took the exams during the Academy, or candidates could qualify if they passed these exams prior to their Academy training. Scores were available for the TCFP and COG exams; however, NREMT only reports exam performance as “pass” or “fail.”



We correlated candidate's certification performances with their Fire Academy performance based on similarity of exam content. The correlation between the Fire Block score from the Academy and the TCFP certification scores was .42 ($n = 47$, $p < .01$). The correlation between the Academy EMT block score and the dichotomous NREMT status was .41 ($n = 52$, $p < .01$). The Academy EMT block score and COG score was .31 ($n = 68$, $p < .05$). These significant inter-correlations indicated that certification scores yielded similar information as did the other criterion measures. In addition, certification scores were available for a small percentage of Academy Cadets. Since results from certification score analyses would not produce as much unique information and the small sample size would limit the analyses statistical power, we did not include them in our analysis.

Probationary Period Performance

Following completion of the Fire Academy, firefighters received initial Fire Station assignments and began a 6-month probationary period. During the probationary period, firefighters rotated through various Fire Station and apparatus assignments and completed six training modules. Three measures of firefighter performance were obtained for this study: an AFD-generated performance evaluation and two supplemental measures of performance.

Probationary Firefighter Evaluation Score. At the end of each of the six training modules, supervisors (i.e., Training officers) complete the Probationary Firefighter Evaluation (PFFE) form. Electronic copies of ratings from these forms were obtained from Department records. Refer to Appendix C to review this form.



The 27 items were organized under five headings: Safety, Emergency Scene Performance, Mechanical Ability, Motivational Skills, and Professional Demeanor. Raters indicate the probationary firefighter's performance using a 4-point scale (Not applicable, Unsatisfactory, Satisfactory, and Exceptional). Items marked "not applicable" were not included in the analysis, effectively reducing the rating scale to three points. For each item, we calculated an average rating across each probationary training module. The Probationary Firefighter Evaluation Score was calculated by averaging across the 27 item scores converted to a 100-point scale.

Ratings for 83 firefighters were obtained. Reliability (Cronbach Alpha) of the PFFE ratings was calculated at .98. For most firefighters, the same supervisor completed ratings for each module. In a few cases, one or two module ratings were completed by another supervisor. As such, calculation of inter-rater reliability estimate was not feasible.

Supplemental Performance

Supplemental Performance Appraisal Rating Score. The Supplemental Performance Appraisal Ratings were collected with a modified version of the instrument that Morris & McDaniel developed and uses for similar validation efforts. Ratings are made along a 10-point scale, with behavioral anchors located between "1" and "2," between "5" and "6," as well as between "9" and "10." Thirty facets of job performance tap specific behaviors exhibited by individuals necessary to succeed in the Academy and once in the job of firefighter (e.g., following safety guidelines, adherence to oral and written instruction, teamwork, working in stressful situations, adaptability). A copy of the Supplemental Performance Appraisal Rating Instrument is presented in Appendix D.



Morris & McDaniel staff trained AFD personnel on the use of the supplemental performance rating instrument. The training covered common rating errors and remedies for avoiding them, an explanation of the rating form and its use as well as practice use of the form. Morris & McDaniel staff facilitated the rating session and monitored supervisors' progress completing the forms.

Ratings were completed by the same fire officers responsible for the PFFE forms. Three attempts were made to obtain supplemental ratings for the probationary firefighters. Due to scheduling conflicts, vacations, and job changes, 39.1% (34 out of 87) of the supervisors of the probationary firefighters were available to complete the Supplemental Performance Appraisal Rating Instrument. The same supervisors also completed the Supervisor Performance Observation Rating form which is described in the next section.

The average rating across the 30-item behaviorally-anchored items, converted to a 100-point scale, was used for the analysis (Supplemental Performance Appraisal Rating Score). Reliability for the 30-item measure, via internal consistency, was calculated at .97.

Supervisor Performance Observation Score. Criterion data collection for probationary firefighters was supplemented further with the use of the Supervisor Performance Observation form. Morris & McDaniel developed this form as a behavioral observation rating. The form consists of 12 performance dimensions. Descriptions accompany each dimension. Ratings are made on a five-point frequency-based scale that ranges from "almost never" to "almost always." Raters also were provided a separate "unable to rate" option in the case they were not able to observe a specific behavior. Raters completed the Supervisor



Performance Observation Form and the Supplemental Performance Appraisal Rating Instrument at the same time.

In addition, the Supervisor Performance Observation form includes four standard duty-based dimensions which tap areas commonly assessed on Fire Department performance evaluations (e.g., performance at fireground scenes, station and equipment maintenance duties). The standard duty items are rated along a 5-point scale, anchored as “greatly above standard,” “meets standard,” and “greatly below standard.” As well, raters were provided a separate option to mark if they were unable to rate the dimension. Cronbach reliability for these items was calculated at .91.

For the present study, the average rating across the 16 dimensions (Supervisor Performance Observation score), converted to a 100-point scale, and was used in the analysis. Since dimension ratings were rated on two different scales (4-pt and 5-pt) they were converted separately to a 100-point scale before combining and obtaining the average score. A copy of the Supervisor Performance Observation Form is presented in Appendix E.



DESCRIPTION OF THE VALIDATION SAMPLE [SECTION 15B(6)]

To understand the representativeness of the validation sample, the Guidelines call for a description of how the validation sample was selected and the composition of that sample, including a breakdown by race, sex, and ethnic group.

The criterion-related validation data for this report provides support that is in addition to the content validity findings submitted previously. For this report, the additional validity data were generated as candidates proceed through Austin Fire Department's hiring process, from the pre-hire screening to academy training as depicted in Table 1. The measures used in the analyses were described in the previous section (refer to Table 2 for a summary).

Breakdowns for the race, sex, and ethnic distribution of candidates at each hiring phase are show in Table 3. These breakdowns begin with the 301 candidates approved to move forward from the Assessment phase, through Pre-Hire Screening phase, to the Academy phase. The table also depicts similar demographic breakdowns for the three validation samples used in the analyses.



Table 3.
Percent Distribution of Race, Sex, and Ethnicity within Hiring Phase and within Validation Samples

| Group | Hiring Phase | | | Validation Samples | | |
|-----------------------|--------------------------------------|---|-------------------------------------|---------------------------------------|--|---|
| | Assessment ^A (n = 301) | Pre-Hire Screening ^B (n = 112) | Entered Fire Academy (n = 97) | Fire Academy Criterion (n = 93) | Probationary Period PFFE Criterion (n = 83) | Probationary Period Supplemental Criterion (n = 34) |
| Asian | 0.7% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| African American | 15.3% | 11.6% | 13.4% | 12.9% | 9.6% | 5.9% |
| Hispanic | 46.8% | 42.0% | 35.1% | 36.6% | 34.9% | 44.1% |
| Native Am./Alaskan | 0.7% | 0.9% | 1.0% | 1.1% | 1.2% | 0.0% |
| White | 28.9% | 35.7% | 40.2% | 38.7% | 42.2% | 50.0% |
| Two or more | 0.7% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Did not disclose | 6.6% | 9.8% | 10.3% | 10.8% | 12.0% | 0.0% |
| | | | | | | |
| Female | 9.3% | 10.1% | 9.3% | 8.6% | 9.6% | 11.8% |
| Male | 87.7% | 86.4% | 87.6% | 88.2% | 86.7% | 88.2% |
| Did not disclose | 3.0% | 3.6% | 3.1% | 3.2% | 3.6% | 0.0% |

^A The combined sample (n = 301) includes 202 regular candidates and 99 priority hires.

^B Pre-hire screening samples comprised candidates who accepted offers.



The above information is presented for comparison of the demographic representation in the validation samples (last 3 columns) to the demographic representation of earlier hiring phases, but primarily the group of candidates who began Academy training ($n = 97$). Except for fewer African Americans in the Probationary Period Supplemental Criterion sample, representation is comparable for demographic groups across the validation samples.



Description of the Written Exam (Cognitive Abilities)

The Written Exam (Cognitive Abilities) was designed to assess the candidate's potential for future success as an entry-level firefighter. The content of the exam covered distinct abilities: Memorization, Reading Comprehension, Mechanical Reasoning, Verbal Reasoning, Spatial Orientation, and Mathematical Computation. The exam consisted of 91 multiple-choice questions that presented candidates with four possible response options. Candidates were instructed to select the best response among the four options presented. A candidate's total score was based on the number of test questions answered correctly.

A readability analysis was performed on the exam. The analyses review the reading demands determined by the exam's structure, complexity, and word choice. Morris & McDaniel's readability analysis includes standard readability indices such as the Flesch-Kincaid, as well as other algorithms that focus on unique elements of sentence and word structure (e.g., ARI, FORCAST, Gunning-Fog, SMOG). We average the results from these multiple methods to obtain an overall reading level estimate (grade level) because job-specific terminology or jargon creates variation in reading level estimates. Further, some methods rely more heavily on specific written content components (e.g., number of syllables).

The average reading grade level of the Written Exam was 7.2 ($SD = 1.7$), meaning that the text is expected to be understood by the average 6th or 7th grade student.



Description of the SOP

The Structured Oral Process (SOP) is an oral board type assessment and consisted of three written scenarios for which candidates provided an oral response. As supported by the job analysis data, each SOP scenario is designed to elicit candidate responses that would allow rating of their ability to identify and analyze problems (Problem Identification), their capacity for working with others as part of a team (Teamwork), their ability to make sound decisions (Decision Making), and their ability to communicate orally (Oral Communication). Candidates are asked to respond orally to each scenario based on how they would handle the problems presented.

While the SOP instructions and scenarios were presented orally to candidates, we calculated readability estimates on its content as a gauge for the understandability of the component. The average reading grade level of the SOP was 6.9 ($SD = 1.7$), meaning that the text is expected to be understood by the average 6th or 7th grade student.



RELIABILITY SECTION [SECTION 15B(7)]

The Guidelines [Section 15(B)7] suggest reliability estimates be reported for assessment procedures. As with all assessments, the reliability of scores is a common concern. Broadly speaking, reliability, more correctly the lack of reliability, is an indication of the amount of error that accompanies measurement. Reliability also can be described as the extent to which the exam would produce consistent results if applicants repeatedly took it or similar tests (Guardians, 630 F.2d at 101).

The internal consistency reliability estimate for the Written Exam was .85. Estimates can range from zero to 1.00. Tests with internal consistency reliability estimates of .70 or higher are considered adequate; however, when making applied decisions, estimates of .80 or higher are recommended (Nunnally & Bernstein, 1994).

Scoring of the SOP is a consensus-based process. Through the consensus process, final ratings are agreed upon by a panel of three raters. Therefore, a reliability estimate could not be calculated. The consensus process, by definition, eliminates individual, per assessor, ratings, and thereby precludes calculation of a reliability estimate. The infeasibility of calculating reliability for the SOP process is not a disadvantage in that the consensus method has long been held as a rating process that produces decisions that are of higher quality and make more use of the information and behaviors available to the raters (Nemiroff & Pasmore, 1975; Pasmore, Nemiroff, & Ford, 1975).

Reliability information concerning the criterion measures was presented in the Criterion Measures section.



TECHNIQUES AND RESULTS SECTION [SECTION 15B(8)]

In this section, the statistical methods for the validation analyses are described and results for these procedures are presented. More specifically this section covers: the summary descriptive statistics; inter-correlations between study variables, predictor and criterion, including validity coefficients; and moderated regression analyses that examined potential test bias.

Descriptive Statistics Summary

In the next table, overall summary descriptive statistics are provided. That table is followed by three additional tables which present summary descriptive statistics disaggregated by sex and by race/ethnicity. Each descriptive statistic table contains information concerning the sample size (N), mean (M), and standard deviation (SD) for variables of interest.



Table 4. Overall Descriptive Statistics by Validation Sample

| | Fire Academy (<i>n</i> = 93) | | PFFE (<i>n</i> = 83) | | Supplemental (<i>n</i> = 34) | |
|--|----------------------------------|-----------|--------------------------|-----------|----------------------------------|-------------------|
| Measures | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Predictor | | | | | | |
| Written Score | 87.40 | 6.52 | 88.07 | 5.92 | 88.69 | 5.42 |
| SOP Score | 84.71 | 11.40 | 84.51 | 11.43 | 84.18 | 10.76 |
| Combined Predictor Score | 85.25 | 9.78 | 85.22 | 9.74 | 85.08 | 8.90 |
| Criteria | | | | | | |
| Academy Score | 86.51 | 10.28 | 88.70 | 3.85 | 89.07 | 3.98 |
| Mentor Rating Score | 73.03 | 14.13 | 74.41 | 12.56 | 77.58 | 12.06 |
| Combined Academy Criterion Score | 75.90 | 12.02 | 77.28 | 10.34 | 79.89 | 9.99 |
| Probationary Firefighter Evaluation Score | -- | -- | 69.07 | 3.64 | 68.79 ^A | 2.58 ^A |
| Supplemental Performance Appraisal Rating Score | -- | -- | -- | -- | 77.31 | 12.54 |
| Supervisor Performance Observation Score | -- | -- | -- | -- | 86.19 | 7.50 |

^A *n* = 32.

Note: All predictor and criteria measures were converted to a percentage based on their respective scale's maximum rating.

Since the above table depicts three distinct validation samples (*ns* of 94, 83, and 34), we also present race, sex and ethnic group score breakdowns in separate tables for each sample.

Table 5.
Descriptive Statistics for Academy Performance Validation Sample by Race, Sex, and Ethnic Group (n = 93)

| | | Predictor Measures | | | | | | Fire Academy Criterion Measures | | | | | |
|------------------|----|--------------------|------|-----------|-------|--------------------------|-------|---------------------------------|-------|---------------------------------|-------|----------------------------------|-------|
| | | Written Score | | SOP Score | | Combined Predictor Score | | Academy Score | | Mentor Performance Rating Score | | Combined Academy Criterion Score | |
| Group | n | M | SD | M | SD | M | SD | M | SD | M | SD | M | SD |
| Asian | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Black | 12 | 80.4 | 8.45 | 70.17 | 22.71 | 72.21 | 18.9 | 75.97 | 22.91 | 59.66 | 16.91 | 64.23 | 15.04 |
| Hispanic | 34 | 86.07 | 6.83 | 85.06 | 8.20 | 85.26 | 7.07 | 86.88 | 6.76 | 73.90 | 12.65 | 76.51 | 10.63 |
| Nat. Am. | 1 | 91.21 | | 84.00 | | 85.44 | | 86.30 | . | 80.00 | . | 81.26 | . |
| White | 36 | 89.62 | 3.61 | 87.33 | 4.17 | 87.79 | 3.38 | 88.38 | 4.21 | 74.91 | 12.98 | 77.60 | 10.78 |
| Two or more | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Did not disclose | 10 | 91.98 | 3.07 | 91.60 | 4.70 | 91.68 | 4.00 | 91.18 | 3.99 | 78.69 | 12.35 | 81.19 | 10.26 |
| | | | | | | | | | | | | | |
| Female | 8 | 86.54 | 3.79 | 81.75 | 13.26 | 82.71 | 11.25 | 91.1 | 3.64 | 72.25 | 14.22 | 76.09 | 11.52 |
| Male | 82 | 87.32 | 6.80 | 84.88 | 11.45 | 85.37 | 9.83 | 85.97 | 10.76 | 72.83 | 14.07 | 75.65 | 12.03 |
| Did not disclose | 3 | 91.94 | 1.27 | 88.00 | 2.00 | 88.79 | 1.62 | 88.88 | 4.58 | 80.57 | 19.06 | 82.23 | 16.04 |

Note: All predictor and criteria measures were converted to a percentage based on their respective scale's maximum rating.



Table 6.
Descriptive Statistics for Probationary Firefighter Evaluation Validation Sample
by Race, Sex, and Ethnic Group (*n* = 83)

| | | Predictor Measures | | | | | | Criterion Measures | |
|------------------|----------|--------------------|-----------|-----------|-----------|--------------------------|-----------|---|-----------|
| | | Written Score | | SOP Score | | Combined Predictor Score | | Probationary Firefighter Evaluation Score | |
| Group | <i>n</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Asian | 0 | -- | -- | -- | -- | -- | -- | -- | -- |
| Black | 8 | 83.10 | 6.46 | 64.50 | 23.80 | 68.22 | 19.86 | 67.83 | 2.97 |
| Hispanic | 29 | 86.02 | 7.26 | 84.00 | 8.35 | 84.40 | 7.29 | 68.84 | 3.05 |
| Nat. Am. | 1 | 91.21 | -- | 84.00 | -- | 85.44 | -- | 66.67 | -- |
| White | 35 | 89.70 | 3.63 | 87.49 | 4.13 | 87.93 | 3.33 | 69.54 | 4.28 |
| Two or more | | | | | | | | | |
| Did not disclose | 10 | 91.98 | 3.07 | 91.60 | 4.70 | 91.68 | 4.00 | 69.30 | 3.53 |
| | | | | | | | | | |
| Female | 8 | 86.54 | 3.80 | 81.75 | 13.29 | 82.71 | 11.25 | 68.13 | 1.72 |
| Male | 83 | 88.08 | 6.17 | 84.67 | 11.49 | 85.35 | 9.78 | 69.16 | 3.81 |
| Did not disclose | 3 | 91.94 | 1.27 | 88.00 | 2.00 | 88.79 | 1.62 | 69.44 | 3.72 |

Note: All predictor and criteria measures were converted to a percentage based on their respective scale's maximum rating.



Table 7.

**Descriptive Statistics for Supplemental Probationary Performance Validation Sample
by Race, Sex, and Ethnic Group (*n* = 34)**

| | | Predictor Measures | | | | | | Criterion Measures | | | |
|------------------|----------|--------------------|-----------|-----------|-----------|--------------------------|-----------|---|-----------|--|-----------|
| | | Written Score | | SOP Score | | Combined Predictor Score | | Supplemental Performance Appraisal Rating Score | | Supervisor Performance Observation Score | |
| Group | <i>n</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Asian | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Black | 2 | 87.91 | 0.00 | 61.00 | 35.36 | 66.38 | 28.28 | 58.15 | 1.20 | 80.59 | 2.71 |
| Hispanic | 15 | 86.23 | 6.79 | 83.73 | 8.24 | 84.23 | 7.04 | 73.57 | 9.11 | 82.67 | 5.69 |
| White | 17 | 90.95 | 3.02 | 87.29 | 4.84 | 88.03 | 4.04 | 82.86 | 12.65 | 89.97 | 7.52 |
| Two or more | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Did not disclose | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | | | | | | | | | | |
| Female | 4 | 87.64 | 2.27 | 84.50 | 2.52 | 85.13 | 2.44 | 80.43 | 15.13 | 86.56 | 7.59 |
| Male | 30 | 88.83 | 5.72 | 84.13 | 11.45 | 85.07 | 9.46 | 76.89 | 12.40 | 86.14 | 7.62 |
| Did not disclose | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

Note: All predictor and criteria measures were converted to a percentage based on their respective scale's maximum rating.



Validity Coefficients

In this section, we present the validity coefficients that describe the relationship between test scores (predictor variables) and criterion measures. Validity coefficients are based on correlations (i.e., Pearson's product-moment coefficient). Correlations indicate the strength and direction of association between two sets of scores. Their values range from 0 to 1 and can be either positive or negative. A value of zero would indicate no relationship between the two sets of variables. A value of +1.0 would indicate a perfect linear, positive relationship.

The validity coefficients on the next page show statistically significant relationships between test scores and criterion measures. Of these, we highlight the validity coefficients that reflect the relationship with the predictor measure used to select entry-level firefighters, namely the Composite Predictor Score, as most relevant. The Composite Predictor Score correlates significantly with five of the six criterion measures. Each of these relationships indicates that candidates who score higher on the predictor also score higher on the performance criteria.



Table 8.

Validity Coefficients for Fire Academy and Probationary Period Criteria.

| Predictor Measures | Fire Academy Performance Criteria | | | Probationary Period Performance Criteria | | |
|---------------------------|-----------------------------------|---|---|---|---|--|
| | Academy Score (<i>n</i> = 93) | Mentor Performance Rating Score (<i>n</i> = 93) | Composite Criterion Score (<i>n</i> = 93) | Probationary Firefighter Evaluation Score (<i>n</i> = 83) | Supplemental Performance Appraisal Rating Score (<i>n</i> = 34) | Supervisor Performance Observation Score (<i>n</i> = 34) |
| Composite Predictor Score | .22 * | .37 ** | .37 ** | .22 * | .34 | .35 * |
| Written Score | .43 ** | .58 ** | .58 ** | .20 | .30 | .39 * |
| SOP Score | .18 | .31 ** | .31 ** | .21 | .31 | .31 |

* Indicates significant at .05 level; ** indicates significant at .01 level; All correlations are uncorrected.



In the next table, we expand upon the key validity coefficients by correcting them for criterion error (criterion reliability). This correction is made to better estimate the true relationship between predictor and criterion based on the data available. For comparative convenience, the first column repeats the uncorrected validity coefficients from the above table. In the second column, we constructed a 95% confidence interval (CI) around the uncorrected validity coefficients. The third column presents the validity coefficient corrected for criterion reliability. By convention, asterisks that indicate statistically significant correlations are not applied to the corrected values, but nonetheless, are derived from statistically significant relationships.

A further typical correction, for range restriction, was not made. Correction for range restriction is made when the applicant sample is truncated. That is, for example, if the bottom third or half of the group were excluded from the applicant pool based on test scores. In the present study, the eligible pool consisted of candidates with the top 12% highest scores ($n = 202$) and an additional 99 priority hires, which clearly represents a truncated sample. However, after reviewing the relevant sample variance components, it was determined that the adjustment would overcorrect the validity coefficients and therefore become misleading.



Table 9. Validity Coefficient Corrected for Criterion Reliability

| Predictor / Criterion Pairs | Validity Coefficient Uncorrected | Confidence Interval | Validity Coefficient Corrected for Criterion Reliability |
|--|-------------------------------------|---------------------|--|
| Combined Predictor Score with Fire Academy Score (<i>n</i> = 93) | .22 * | 0.17 to 0.27 | 0.29 * |
| Combined Predictor Score with Mentor Performance Rating Score (<i>n</i> = 93) | .37 ** | 0.33 to 0.41 | 0.38 ** |
| Combined Predictor Score with Composite Criterion Score (<i>n</i> = 93) | .37 ** | 0.33 to 0.41 | 0.50 ** |
| Combined Predictor Score with Probationary Firefighter Evaluation Score (<i>n</i> = 83) | .22 * | 0.17 to 0.27 | 0.23 * |
| Combined Predictor Score with Supervisor Performance Observation Score (<i>n</i> = 34) | .35 * | 0.31 to 0.39 | 0.42 ** |

* Indicates significant at .05 level; ** indicates significant at .01 level.

When viewed collectively, the corrected validity coefficients in the above table clearly demonstrate the effectiveness of Morris & McDaniel's selection procedures identifying candidates with the qualities necessary to becoming successful entry-level firefighters. In addition, validity coefficients of the magnitude (.35 or higher) presented above are what the Department of Labor termed "very beneficial" for making these important personnel decisions.



Standardized Mean Differences

Standardized Mean Differences (SMDs) allow direct comparison of the size of the difference between two groups' mean scores because they are expressed in a standardized metric (i.e., standard deviation units). The SMDs are provided as a means of interpreting differences across groups (as depicted in the following tables) or in relation to known values for similar comparisons. While providing useful information for making relative comparisons of mean differences, SMDs also may highlight non-job-related differences. However, we urge caution when interpreting SMDs alone as they are not direct evidence of biased metrics.

When interpreting SMDs, the confidence interval also must be considered. Confidence intervals that contain zero within their range indicate that the difference between the means is not large enough to be considered meaningful (i.e., beyond chance). The SMD for the predictor and criterion measure comparisons in the tables below relied on Cohen's *d* statistic.

In addition, we caution that comparison of SMDs should be limited to variables in this study only. While SMDs typically can be compared between studies, those comparisons are not appropriate here due to the inclusion of the select sample of Priority Hires who did not score at or above the cut score (i.e., adds variability due to population differences instead of only measurement scale differences, thereby challenging the assumption of statistical normality).

Further, based on the representation of Priority Hires in the validation samples (about 60% Black versus 30% Hispanic applicants), we would anticipate comparisons involving Black applicants to be affected the most (i.e., creating larger SMD values).



Table 10.
Academy Performance Criterion Sample ($n = 93$):
SMDs by Race, Sex and Ethnic Group (includes low scoring Priority Hires).

| Predictor Measures | Written Exam Score | | SOP Score | | Combined Predictor Score | |
|--------------------|---------------------|---------------------|---------------------------|---------------------|--------------------------|---------------------|
| Groups compared | SMD | Confidence Interval | SMD | Confidence Interval | SMD | Confidence Interval |
| Asian / White | -- | -- | -- | -- | -- | -- |
| Black / White | -1.71 | -2.45 to -0.97 | -1.41 | -2.12 to -0.7 | -1.55 | -2.27 to -0.83 |
| Hispanic / White | -0.64 | -1.12 to -0.16 | -0.34 | -0.81 to 0.13 | -0.45 | -0.92 to 0.02 |
| Female / Male | 0.30 | -0.43 to 1.03 | -0.26 | -0.99 to 0.47 | -0.26 | -0.99 to 0.47 |
| Criteria Measures | Academy Total Score | | Mentor Performance Rating | | Combined Criterion Score | |
| Groups compared | SMD | Confidence Interval | SMD | Confidence Interval | SMD | Confidence Interval |
| Asian / White | -- | -- | -- | -- | -- | -- |
| Black / White | -1.01 | -1.69 to -0.33 | -1.05 | -1.74 to -0.36 | -1.08 | -1.77 to -0.39 |
| Hispanic / White | -0.26 | -0.73 to 0.21 | -0.08 | -0.55 to 0.39 | -0.10 | -0.57 to 0.37 |
| Female / Male | 0.48 | -0.25 to 1.21 | -0.04 | -0.77 to 0.69 | 0.04 | -0.69 to 0.77 |

Note. Due to inclusion of Priority Hire candidates, SMD comparisons should not be generalized beyond the scope of this study. Comparators for Race or Ethnic group or Sex were Whites and Males, respectively, such that negative SMDs indicate higher White and Male scores.



Table 11.
Probationary Firefighter Evaluation Criterion Sample (n = 83):
SMDs by Race, Sex and Ethnic Group (includes low scoring Priority Hires).

| Predictor Measures | Written Exam Score | | SOP Score | | Combined Predictor Score | |
|--------------------|---|---------------------|-----------|---------------------|--------------------------|---------------------|
| Groups compared | SMD | Confidence Interval | SMD | Confidence Interval | SMD | Confidence Interval |
| Asian / White | -- | -- | -- | -- | -- | -- |
| Black / White | -1.49 | -2.32 to -0.66 | -2.09 | -2.98 to -1.20 | -2.16 | -3.05 to -1.27 |
| Hispanic / White | -0.64 | -1.14 to -0.14 | -0.53 | -1.03 to -0.03 | -0.63 | -1.13 to -0.13 |
| Female / Male | -0.25 | -0.98 to 0.48 | -0.25 | -0.98 to 0.48 | -0.26 | -0.99 to 0.47 |
| Criteria Measures | Probationary Firefighter Performance Evaluation | | | | | |
| Groups compared | SMD | Confidence Interval | | | | |
| Asian / White | -- | -- | | | | |
| Black / White | -0.40 | -1.17 to 0.37 | | | | |
| Hispanic / White | -0.18 | -0.67 to 0.31 | | | | |
| Female / Male | -0.27 | -1.00 to 0.46 | | | | |

Note. Due to inclusion of Priority Hire candidates, SMD comparisons should not be generalized beyond the scope of this study. Comparators for Race or Ethnic group or Sex were Whites and Males, respectively, such that negative SMDs indicate higher White and Male scores.



Table 12.
Supplemental Performance Appraisal and Supervisor Performance Observation Criterion Sample ($n = 34$):
SMDs by Race, Sex and Ethnic Group (includes low scoring Priority Hires).

| Predictor Measures | Written Exam Score | | SOP Score | | Combined Predictor Score | |
|--------------------|--|---------------------|--|---------------------|--------------------------|---------------------|
| Groups compared | SMD | Confidence Interval | SMD | Confidence Interval | SMD | Confidence Interval |
| Asian / White | -- | -- | -- | -- | -- | -- |
| Black / White | -0.94 | -2.44 to 0.56 | -2.43 | -4.09 to -0.77 | -2.48 | -4.14 to -0.82 |
| Hispanic / White | -0.87 | -1.60 to -0.14 | -0.51 | -1.22 to 0.20 | -0.64 | -1.35 to 0.07 |
| Female / Male | -0.21 | -1.25 to 0.83 | -1.47 | -2.57 to -0.37 | 0.01 | -1.03 to 1.05 |
| Criteria Measures | Supplemental Performance Appraisal Score | | Supervisor Performance Observation Score | | | |
| Groups compared | SMD | Confidence Interval | SMD | Confidence Interval | | |
| Asian / White | -- | -- | -- | -- | | |
| Black / White | -0.53 | -2.00 to 0.94 | -0.38 | -1.85 to 1.09 | | |
| Hispanic / White | -0.46 | -1.16 to 0.24 | -1.02 | -1.76 to -0.28 | | |
| Female / Male | 0.26 | -0.79 to 1.31 | 0.05 | -0.99 to 1.09 | | |

Note. Due to inclusion of Priority Hire candidates, SMD comparisons should not be generalized beyond the scope of this study. Comparators for Race or Ethnic group or Sex were Whites and Males, respectively, such that negative SMDs indicate higher White and Male scores.



Again, recall that mean differences, by themselves, do not prove a selection procedure is biased, even those with evidence of mean differences. Instead the differences must be considered in the context of the performance scores. Therefore, in the next section, we examine potential test bias through moderated regression analyses.

Freedom from Bias

The validity results demonstrate the overall relationship between predictor and criterion measures; however, those coefficients do not inform issues that relate to potential test fairness. To examine the validation data for signs of possible bias, moderated regression analyses were performed for five statistically significant combined validity coefficients (Table 9).

Moderated regression analyses, also known as Cleary fairness analyses (Bartlett, Bobko, Mosier & Hannan, 1978), explore potential predictive bias by looking at the relative contribution of job-related indicators (e.g., test score) or non-job-related indicators (e.g., race, sex, or ethnicity) in explaining variation in job performance measures (e.g., supervisor evaluations).

For the present study, a series of moderated regression analyses were created for each combination of criterion measure and validation sample. Within each combination (measure and sample), criterion measure scores were regressed onto a model containing test score (i.e., the combined predictor), group (race, sex, or ethnic group) and the interaction of test score and group. The combination of components in the series was guided by Lautenschlager and Mendoza (1986), where an omnibus test of bias is conducted first (Step 1: group and interaction entered after predictor score).



Based on whether the omnibus test indicates that the addition of the group and interaction effects produced a significant result, the analyses either stops (omnibus test was not significant, therefore no bias indicated) or additional analyses are conducted to isolate the source of the omnibus test's significant result.

The supplemental analyses are conducted first for the interaction effect (Step 2: interaction entered after predictor score and group), then the group effect (Step 3: group entered after predictor score alone or group entered after predictor score and interaction). In Step 3, the results of Step 2 are used to determine whether the initial model components contain only the predictor score or both predictor and interaction. If Step 2 does not yield a significant interaction effect, Step 3 is conducted on predictor score and group. If Step 2 yields a significant interaction effect, Step 3 is conducted where the predictor score and interaction are entered first.

Below, each moderated regression results table presents amount of variance explained by the model (R^2), the change in the amount of variance explained due to the addition of new factors (ΔR^2) as well as the significance test for the change (ΔF), where asterisks indicate level of significance. To facilitate interpretation of the practical significance (as opposed to statistical significance), we also present the unstandardized Beta values for the interaction (B_{slope}) and group (B_{group}) effects.

Potential bias is indicated in by asterisks next to values under the significance test for change (ΔF).



Group was a coded entry (0 or 1) where a “1” represented a minority group (i.e., female, Black or Hispanic) and “0” represented the non-minority employee group (Male or White). Analyses were conducted for race, sex, or ethnic groups that represented at more than two percent of the analysis sample; however, analyses were not conducted on other race, sex, or ethnic group designations (e.g., “Two or More Races,” “Other,” or “Did Not Disclose”). Some moderated regressions were not feasible because the group’s sample size was insufficient (e.g., Native American Indian/Alaskan Native).

Since operationally the combined predictor score is used to make personnel decisions, we include only results for the moderated regressions with the Combined Predictor score was in the model, instead of each of its components.



Table 13. Clearly Regression for Academy Score Criteria and Combined Predictor Score.

| Groups Compared by Regression Factors | R^2 | ΔR^2 | ΔF | B_{slope} | $B_{\text{intercept}}$ |
|---|-------|--------------|------------|--------------------|------------------------|
| Black and White ($n = 48$) | | | | | |
| Step 1 Omnibus | .18 | .11 | 2.97 | -.19 | -11.41 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Hispanic and White ($n = 70$) | | | | | |
| Step 1 Omnibus | .05 | .04 | 1.58 | -.38 | -1.49 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Female and Male ($n = 90$) | | | | | |
| Step 1 Omnibus | .07 | .03 | 1.19 | -.09 | 5.59 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |

* $p < .05$; ** $p < .01$.

Note. To facilitate interpretation of B , the continuous variable (test score), was centered on its mean. "NA" indicates analysis of individual component models were not applicable because omnibus test result (Step 1) was not statistically significant.



Table 14. Cleary Regression for Mentor Performance Rating Criteria and Combined Predictor Score.

| Groups Compared by Regression Factors | R^2 | ΔR^2 | ΔF | B_{slope} | $B_{\text{intercept}}$ |
|---|-------|--------------|------------|--------------------|------------------------|
| Black and White ($n = 48$) | | | | | |
| Step 1 Omnibus | .24 | .09 | 2.74 | -.93 | -8.78 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Hispanic and White ($n = 70$) | | | | | |
| Step 1 Omnibus | .07 | .01 | .50 | -.70 | .91 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Female and Male ($n = 90$) | | | | | |
| Step 1 Omnibus | .17 | .04 | 1.88 | -.89 | -1.11 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |

* $p < .05$; ** $p < .01$.

Note. To facilitate interpretation of B , the continuous variable (test score), was centered on its mean. "NA" indicates analysis of individual component models were not applicable because omnibus test result (Step 1) was not statistically significant.



Table 15. Cleary Regression for Composite Criterion Score (Academy and Mentor) and Combined Predictor Score.

| Groups Compared by Regression Factors | R^2 | ΔR^2 | ΔF | B_{slope} | $B_{\text{intercept}}$ |
|---|-------|--------------|------------|--------------------|------------------------|
| Black and White ($n = 48$) | | | | | |
| Step 1 Omnibus | .25 | .10 | 2.94 | -.79 | -8.03 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Hispanic and White ($n = 70$) | | | | | |
| Step 1 Omnibus | .07 | .02 | .58 | -.63 | .45 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Female and Male ($n = 90$) | | | | | |
| Step 1 Omnibus | .17 | .03 | 1.77 | -.72 | .06 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |

* $p < .05$; ** $p < .01$.

Note. To facilitate interpretation of B , the continuous variable (test score), was centered on its mean. "NA" indicates analysis of individual component models were not applicable because omnibus test result (Step 1) was not statistically significant.



Table 16. Clearly Regression for Probationary Firefighter Evaluation Score and Combined Predictor Score.

| Groups Compared by Regression Factors | R^2 | ΔR^2 | ΔF | B_{slope} | $B_{\text{intercept}}$ |
|---|-------|--------------|------------|--------------------|------------------------|
| Black and White ($n = 43$) | | | | | |
| Step 1 Omnibus | .04 | .003 | .06 | .05 | -.65 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Hispanic and White ($n = 64$) | | | | | |
| Step 1 Omnibus | .03 | .01 | .17 | .09 | -.50 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Female and Male ($n = 80$) | | | | | |
| Step 1 Omnibus | .06 | .01 | .36 | -.08 | -.98 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |

* $p < .05$; ** $p < .01$.

Note. To facilitate interpretation of B , the continuous variable (test score), was centered on its mean. "NA" indicates analysis of individual component models were not applicable because omnibus test result (Step 1) was not statistically significant.



Table 17. Cleary Regression for Supervisor Performance Observation Score and Combined Predictor Score.

| Groups Compared by Regression Factors | R^2 | ΔR^2 | ΔF | B_{slope} | $B_{\text{intercept}}$ |
|---|-------|--------------|------------|--------------------|------------------------|
| Black and White ($n = 19$) | | | | | |
| Step 1 Omnibus | .16 | .05 | .40 | -.10 | -6.93 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Hispanic and White ($n = 32$) | | | | | |
| Step 1 Omnibus | .28 | .16 | 3.08 | .10 | -6.36 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Female and Male ($n = 34$) | | | | | |
| Step 1 Omnibus | .21 | .09 | 1.68 | -3.04 | .53 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |

* $p < .05$; ** $p < .01$.

Note. To facilitate interpretation of B , the continuous variable (test score), was centered on its mean. "NA" indicates analysis of individual component models were not applicable because omnibus test result (Step 1) was not statistically significant.



Inspection of the above freedom from bias results confirmed that the Combined Predictor scores (composite of Morris & McDaniel's Written and SOP components) were not biased predictors of performance as evidenced across multiple criteria. Specifically, no bias was found against female, Black, or Hispanic applicants.

To summarize the key findings presented thus far, we found that the assessment procedures as used by Morris & McDaniel for the 2015 Austin entry-level firefighter selection process:

- Were job-related and content valid as supported by the job analysis.
- Were constructed and administered in an objective manner.
- Produced scores that minimized error related to the reliability of test scores and other factors.
- Minimized mean score differences which could affect predictive accuracy of performance based on group membership.
- Demonstrated criterion-related validity across multiple measures of firefighter performance.
- Produced no indication of predictive biases against protected groups, specifically females, Blacks, or Hispanics.

These results demonstrate the effectiveness of the combined test scores as used in the 2015 entry-level selection process for the City of Austin.



ALTERNATIVE PROCEDURES INVESTIGATED [SECTION 15B(9)]

Since the preponderance of evidence demonstrates the combination of the Written Exam and SOP components produced a reliable, valid, and fair selection process, a search for alternative selection procedures that do not have adverse impact is not warranted.

USES AND APPLICATIONS [SECTION 15B(10)]

The Combined Predictor Score is a valid and fair selection screening tool. Results presented in this report support its use with entry-level firefighter candidates. As well, the results demonstrated that the Written Test score and the SOP score both are valid predictors of scores on like-content criterion measures. Morris & McDaniel typically recommends that multiple selection devices be relied upon when making critical personnel decisions. Further, Morris & McDaniel promotes the collection of additional local validation and fairness data because sample sizes were small for some comparisons.

SOURCE DATA [SECTION 15B(11)]

Morris & McDaniel maintains the source data for the descriptions, analyses, and results contained in this report in accordance with its data storage and maintenance procedures. Original Fire Academy data is maintained and controlled by the City of Austin and the Austin Fire Department.



CONTACT PERSON [SECTION 15B(12)]

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ACCURACY AND COMPLETENESS [SECTION 15B(13)]

Morris & McDaniel took numerous steps to ensure the accuracy and completeness of this report and the data upon which it was based. Data collection and storage is conducted in accordance with written procedures and other instructions designed to ensure the accuracy as well as the privacy and confidentiality of sensitive information. Established protocols and procedures were followed, including, but not limited to the following:

1. Experienced professionals directed the development, implementation, data collection, and analysis of the assessment components and criterion measures.
2. Where feasible, Morris & McDaniel staff supervised or conducted the collection of criterion data.
3. The procedures used to guide the conduct of this study are in accordance with generally-accepted scientific and professional standards.



4. Data collection methods and procedures were structured and standardized in a manner to reduce data entry errors.
5. Data and results were verified for accuracy using various proprietary algorithms and by checking random samples of entries against hard copies or other original data sources.
6. All Morris & McDaniel staff involved in the study received training on relevant procedures.
7. Morris & McDaniel relied on the City of Austin and the Austin Fire Academy to produce certain candidate data, including but not limited to candidate information and criterion score data. While we have no reason to doubt the completeness or accuracy of this information, Morris & McDaniel is unable to independently verify these data.



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ATTACHMENT A
O*NET Job Description: Municipal Firefighter



ATTACHMENT B
Supplemental Mentor Performance Rating Form



Morris & McDaniel, Inc.

September 2018

ATTACHMENT C
Probationary Firefighter Evaluation Rating Form



ATTACHMENT D
Supplemental Performance Appraisal Rating Instrument



ATTACHMENT E
Supervisor Performance Observation Form



National Entry-Level Fire Selection Process
Written and Oral Components
Summary of Criterion-Related Validity Results

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National Entry-Level Firefighter Selection Process

Summary of Criterion-Related Validity Results

This report summarizes the criterion-related validation results for the National Entry-level Fire Selection Process (NEFSP) developed by Morris & McDaniel, Inc. Scores for the NEFSP reflect a composite of three assessment components: Written Cognitive, Written Non-Cognitive and a Structured Oral. As detailed in this report, results support the NEFSP as reliable, valid and fair selection tool.

As an organizational framework for this report, references to relevant section of the Uniform Guidelines on Employee Selection Procedures (1978) are used.

Morris & McDaniel, Inc., views test development and validation as an iterative, on-going process. Therefore, Morris & McDaniel continues to monitor administrations of its assessment procedures to ensure their high quality is maintained. Reports are periodically reviewed and updated.



USER, LOCATION, AND DATE OF STUDY [SECTION 15B(1)]

Morris & McDaniel's National Entry-level Firefighter Selection Process (NEFSP) initially was validated with data collected from 4,976 entry-level firefighter applicants for a Midwestern fire department from 2001 through 2011. The NEFSP was one of several selection procedures that were used by the department in making employment decisions. The hiring process, including the NEFSP, was conducted every two years.

In 2009 and again in 2011, performance ratings (e.g., training, on-the-job) were collected on applicants who were hired by the department. Performance ratings were available for 413 firefighters.

PROBLEM AND SETTING [SECTION 15B(2)]

Under the *Guidelines*, evidence of a selection procedure's validity can be demonstrated by examining empirical evidence of the relationship between applicant test scores and important job performance criteria. Empirical evidence is established via a study that correlates assessment scores with job performance criteria. If statistically significant, the relationship supports the validity of the selection procedure. Results of the validity study conducted by Morris and McDaniel are presented in this report.



JOB ANALYSIS AND REVIEW OF JOB INFORMATION [SECTION 15B(3)]

The job analysis information supporting the content validity and use of the NESFP for entry-level firefighter is described in a separate report maintained by Morris & McDaniel.

JOB TITLE AND CODE [SECTION 15B(4)]

The Standard Occupational Classification (SOC) job title and code is Municipal Firefighter 33-2011.01 (National Center for O*NET Development, 2015). While the Guidelines suggest presenting position information from the Dictionary of Occupational Titles (DOT), the O*NET system replaced the DOT in 2001. A copy of the O*NET description for Municipal Firefighter is presented in Appendix A.

CRITERION MEASURES [SECTION 15B(5)]

Criteria used for the validation study were obtained from three sources, performance in the fire academy (training), post-hire performance ratings (on-the-job performance), and supplemental performance ratings developed for the validation study (on-the-job performance). Each criterion is described below.



Fire Academy Performance

Fire academy scores were obtained from fire department records. These scores represented the candidate's cumulative score across fire fighting and fire ground skills demonstrated during the fire academy. Performance was based on a 100-point scale. The department provided these ratings via a spreadsheet. The Academy Composite score was used in the validation analyses which consisted of a maximum of 50 points each from fire and emergency medical components.

Reliability for the Fire Academy Performance Composite scores was .65 using the Cronbach Alpha procedure.

Post-Hire Performance Ratings

After completing the Fire Academy and following their station assignments, direct supervisors evaluate firefighters annually based on their on-the-job performance. Ratings were recorded on the department's standard performance rating form (form title: Employee Performance Report) which consists of 11 rating categories that are completed for all department personnel. The form also contains five other rating categories that are completed for personnel holding ranks above firefighter. In addition, a global rating is made based on performance in the rated categories plus other pertinent factors concerning the employee's performance. Category ratings are made on a 5-point rating scale, anchored "Unsatisfactory", "Marginal", "Satisfactory", "Better", and "Optimal". Ratings for the global item are made on



a 4-point scale, anchored “Unsatisfactory”, “Satisfactory”, “Better”, and “Optimal”. The department transmitted hard copies of the post-hire performance ratings. Morris & McDaniel staff hand entered the ratings into a database, converting the ratings to numeric equivalents, 1 to 5 (categories) and 1 to 4 (global rating). From the rating categories, a composite score (Post-Hire Composite) was obtained by averaging across the 11 ratings. The Post-Hire Composite and Post-Hire Global ratings were used in the validation analyses.

Using an internal consistency measure, Cronbach Alpha, reliability for the Post-Hire Performance Review - Composite was calculated at .89.

Supplemental Performance Ratings

Staff from Morris & McDaniel trained agency supervisors on the use of a supplemental performance rating instrument developed by Morris & McDaniel. The supplemental performance rating instrument elicits ratings for 34 job-related skills and abilities that flow directly from job analysis data. It covers specific behaviors exhibited by individuals in the job of entry-level firefighter (e.g., safety guidelines, fire ground decisions, adherence to oral and written instruction). In addition, the supplemental performance rating instrument included two measures of overall performance. The trained supervisors completed the supplemental ratings on firefighters who completed the Fire Academy and had been employed for at least three months.



Ratings for the 34 items were made on a 10-point scale. Each item was anchored at each end of the scale and in the middle. Content of the three anchors were unique to each item. A composite score (Supplemental Performance Composite) was obtained by averaging across the 34 ratings.

Using an internal consistency measure, Cronbach Alpha, reliability for the Supplemental Performance Composite was calculated at .99.

Two overall performance ratings were obtained from a 10-point scale, anchored “In Bottom 5%”, “Much lower than most”, “Typical of most employees”, “Much higher than most”, and “In Top 5%”, at scale points 1, 3, 5, 7, and 10, respectively. A global score (Supplemental Performance Global) was obtained by averaging the two overall performance ratings.

Cronbach Alpha reliability for the Supplemental Performance Global was calculated at .92.

The Supplemental Composite and Supplemental Global scores were used in the validation analyses.

Prior to collecting the supplemental ratings, supervisors were trained by Morris & McDaniel staff during a one-day session. During the training, the rating process and rating procedures were discussed. Supervisors were provided instruction on using the Supplemental Performance Rating Form. Supervisors were trained on how to avoid common rating errors and they were provided with remedies to address specific rating errors. In addition, training included practice using the actual rating form.



DESCRIPTION OF THE VALIDATION SAMPLE [SECTION 15B(6)]

To understand the representativeness of the validation sample, the Guidelines call for a description of how the validation sample was selected and the composition of that sample, including a breakdown by race, sex and ethnic groups.

The validation data was selected from a larger database containing entry-level firefighter selection scores from a Midwestern fire department. Data were included in the validation sample based on the availability of a minimum of four scores: the two scores the written exam scores (WC and WNC), plus at least one of the performance scores described in the previous section. In some cases, multiple performance criteria were available for the same individual.

Between 2001 and 2013, exam scores were available for nearly 5,000 candidates (Applicant population). Also during that timeframe, one or more criterion scores were available for 413 of those candidates. Table 1 shows the size of each race, sex and ethnic group that comprises the validation sample. For comparison purposes, similar descriptions of the applicant population are presented.



Table 1. Race, Sex and Ethnic Group Distribution by Sample.

| Group | Validation Sample (n=413) | Applicant Population (n=4,976) |
|--|--|---|
| Sex | | |
| Female | 2.7% | 5.1% |
| Male | 96.6% | 84.9% |
| Did Not Disclose | .7% | 10.0% |
| | | |
| Race/Ethnicity | | |
| African American | 12.8% | 18.6% |
| Alaskan Native or American Indian | 1.2% | .5% |
| Asian | 1.2% | .5% |
| Caucasian | 67.8% | 50.2% |
| Hispanic | 9.7% | 6.4% |
| Two or more | 1.7% | 2.7% |
| Did Not Disclose | 5.6% | 21.3% |



Description of the Assessment Process

Morris & McDaniel, Inc. designed and developed the NEFSP to measure job applicant's potential for future success if hired as an entry-level firefighter. The process consists of three components, a written cognitive component (WC), a non-cognitive component (WNC), and a structured oral component (SO). The typical administration entails candidates taking all three components. Depending on the number of candidates being assessed, the available test facilities and other logistic factors, the two written components usually are administered on a separate day from oral component.

Written Components

The WC component comprises 113 multiple choice items that tap into specific, distinct job-relevant abilities. Those abilities include but may not be limited to Memorization, Reading Comprehension, Mechanical Reasoning, Verbal Reasoning, Spatial Orientation, and Mathematical Computation. Each WC question presents the test taker with four possible response options.

The WNC components consists of 124 multiple choice items that target job-relevant behavioral characteristics, which include but may not be limited to, fundamental values, work ethic, integrity, and other basic counter productive work behaviors. Response options presented to test takers vary, ranging from two to ten choices.



Instructions for both the cognitive and non-cognitive/behavioral components instruct exam takers to choose the response to each question or scenario that is the most accurate or appropriate.

Structured Oral Component

Morris & McDaniel developed the Structured Oral (SO) process as a performance based assessment designed to elicit behaviors relevant to later achievement if hired as an entry-level firefighter. The SO process is an oral board type assessment and consisted of three written scenarios for which candidates provided an oral response. As supported by the job analysis data, each SO scenario is designed to elicit candidate responses that would allow rating of their ability to identify and analyze problems (Problem Identification), their capacity for working with others as part of a team (Teamwork), their ability to make sound decisions (Decision Making) and their ability to communicate orally (Oral Communication).

The SO consists of three scenarios to which applicants provide an oral response to open-ended questions asking what action(s) they would take, if any, in response to the scenario's content. Trained assessors evaluate applicant responses on each dimension using a standardized scoring guide. Behavior elicited by the SO scenarios is linked directly to the dimensions identified as important as determined by the job analysis.

Prior fire knowledge is not needed to respond to these scenarios. Following each scenario, the candidate had a maximum of four (4) minutes for each scenario to identify the problems and issues and orally present how he/she would handle the situation to a video camera. Further, the exercise was read



aloud to the candidates during the administration as well as being presented in writing to the candidate.

Readability Analysis.

A readability analysis was performed on the written (WC and WNC) and structured oral components. The analyses review the reading demands determined by the exam's structure, complexity, and word choice. Morris & McDaniel's readability analysis includes standard readability indices, such as the Flesch-Kincaid, as well as other algorithms that focus on unique elements of sentence and word structure (e.g., ARI, FORCAST, Gunning-Fog, SMOG). We average the results from these multiple methods to obtain an overall reading level estimate (grade level) because job-specific terminology or jargon creates variation in reading level estimates. Further, some methods rely more heavily on specific written content components (e.g., number of syllables).

The average reading grade level of the WC component was 7.2 ($SD = 1.7$), meaning that the text is expected to be understood by the average 6th or 7th grade student. The average reading grade level of the WNC component was 7.0 ($SD = 1.9$).

While the SO instructions and scenarios are presented orally to candidates as well as in writing, we calculated readability estimates on its content as a gauge for the understandability of the component. Using the procedures described above, the average reading grade level for the SO component was 6.5 ($SD = 1.6$), meaning that the text is expected to be understood by the average 6th or 7th grade student.



RELIABILITY [SECTION 15(B)7].

As with all assessments, the reliability of scores is a common concern. Broadly speaking, reliability, more correctly the lack of reliability, is an indication of the amount of error that accompanies measurement.

Reliability also can be described as the extent to which the exam would produce consistent results if applicants repeatedly took it or similar tests (Guardians, 630 F.2d at 101). Section 15(B)7 of the Uniform Guidelines suggests that reliability estimates should be provided for assessment procedures.

Reliability estimates range in value from zero to one, where a value of one would indicate perfect consistency in the data. As a rule of thumb on multiple choice abilities tests, values should meet or exceed .80.

Internal consistency reliability for the cognitive and non-cognitive components of the exam was estimated using the Cronbach Alpha technique. Reliability for the cognitive and non-cognitive components were calculated at .90 and .96, respectively.

Scoring of the SO is a consensus-based process. Through the consensus process, final ratings are agreed upon by a panel of trained assessors. Therefore, a reliability estimate was not calculated. The consensus process, by definition, eliminates individual, per assessor ratings, and thereby precludes calculation of a reliability estimate. The infeasibility of calculating reliability for the SOP process is not a disadvantage in that the consensus process has long been held as a rating process that produces



decisions that are of higher quality and make more use of the information and behaviors available to the raters (Nemiroff, and Pasmore, 1975; Pasmore, Nemiroff, and Ford, 1975).

As in most implementations, personnel decisions are based on a composite score which combines the written and oral component scores. In using the composite score, it was desirable to have its reliability estimate for the purpose of gauging its consistency as well as applying corrections for statistical artifacts affecting validity coefficients, as appropriate. We used a reliability of .80 for the SO component, which was derived from the Cronbach Alpha technique applied to the scenario scores as if they were individual test items. When the reliability estimates for the written and oral components were combined using Mosier's Reliability of Composite Scores, an estimate of .81 was obtained.

Reliability information concerning the criterion measures was presented in the Criterion Measures section.



TECHNIQUES AND RESULTS SECTION [SECTION 15B(8)]

In this section, the statistical methods for the validation are described and results for these procedures are presented. Three subsections cover: the summary descriptive statistics for the overall validation sample; inter-correlations between study variables, predictor and criterion, including validity coefficients; and bias analyses that examined potential adverse impact.

Descriptive Statistics Summary

In this section, we report summary statistics for measures of central tendency (e.g., means) and dispersion (e.g., standard deviation) for the two components of the NELF as well as for each of the performance criteria. Further, we present these summary statistics disaggregated by race, sex and ethnic group representing at least two percent of the tested population.

Summary Statistics for Total Validation Sample. The sample size (n), mean (M), and standard deviation (SD) for the total validation sample ($n = 413$) are presented in the next table.

Note: We present summary statistics and other results separately for the cognitive and non-cognitive components; however, Morris & McDaniel typically recommends forming a composite score from the components.



Table 2. Validation Sample Summary Descriptive Statistics.

| Measure | Descriptive Statistic | | |
|--|-----------------------|----------|-----------|
| Predictor Measures | <i>n</i> | <i>M</i> | <i>SD</i> |
| Cognitive Component (WC) | 413 | 84.06 | 10.89 |
| Non-Cognitive Component (WNC) | 280 | 89.25 | 4.17 |
| Structured Oral Component (SO) | 410 | 84.24 | 10.56 |
| Composite Written Component (WC & WNC) | 280 | 86.31 | 3.96 |
| Composite Overall NEFSP (WC, WNC, & SO) | 280 | 82.84 | 8.08 |
| Criterion Measures | <i>n</i> | <i>M</i> | <i>SD</i> |
| Fire Academy Performance - Composite | 194 | 91.43 | 5.80 |
| Post-Hire Performance Review – Composite | 315 | 3.44 | .42 |
| Supplemental Performance- Composite | 67 | 7.18 | 1.65 |

In the next eight tables, summary descriptive statistics are disaggregated by gender and by race/ethnicity. The first three tables show the breakdowns for the NESFP components scores, followed by two tables (Tables 6 & 7) for the composite NESFP scores, and the remaining tables depict breakdowns for each of the criterion measures. These tables include the same descriptive statistics as presented above for the total validation sample. In reviewing these tables, we caution readers to consider the sample size for any subgroup of interest when making comparisons.



Table 3. Cognitive (WC) Component Scores:
Breakdown by Sex, Race, and Ethnic Group ($n = 413$).

| | Descriptive Statistic | | |
|-----------------------------------|-----------------------|----------|-----------|
| Group | <i>n</i> | <i>M</i> | <i>SD</i> |
| Sex | | | |
| Female | 11 | 75.11 | 3.80 |
| Male | 399 | 78.63 | 7.99 |
| Did Not Disclose | 3 | 72.53 | 6.86 |
| | | | |
| Race/Ethnic | | | |
| African American | 53 | 72.52 | 8.35 |
| Alaskan Native or American Indian | 5 | 81.78 | 11.64 |
| Asian | 5 | 85.77 | 2.61 |
| Caucasian | 280 | 80.14 | 7.22 |
| Hispanic | 40 | 76.32 | 7.11 |
| Two or more | 7 | 76.91 | 5.75 |
| Did Not Disclose | 23 | 74.09 | 7.81 |



Table 4. Non-Cognitive (WNC) Component Scores:
Breakdown by Sex, Race, and Ethnic Group ($n = 280$).

| | Descriptive Statistic | | |
|-----------------------------------|-----------------------|----------|-----------|
| Group | <i>n</i> | <i>M</i> | <i>SD</i> |
| Sex | | | |
| Female | 8 | 87.38 | 2.59 |
| Male | 269 | 89.29 | 4.22 |
| Did Not Disclose | 3 | 90.67 | 1.37 |
| | | | |
| Race/Ethnic | | | |
| African American | 37 | 88.40 | 3.93 |
| Alaskan Native or American Indian | 1 | 87.72 | |
| Asian | 3 | 88.94 | 3.44 |
| Caucasian | 187 | 89.58 | 4.06 |
| Hispanic | 30 | 88.31 | 5.53 |
| Two or more | 3 | 89.35 | 1.26 |
| Did Not Disclose | 19 | 89.24 | 3.68 |



Table 5. Structured Oral (SO) Component Scores:
Breakdown by Sex, Race, and Ethnic Group ($n = 410$).

| | Descriptive Statistic | | |
|-----------------------------------|-----------------------|----------|-----------|
| Group | <i>n</i> | <i>M</i> | <i>SD</i> |
| Sex | | | |
| Female | 11 | 84.75 | 8.36 |
| Male | 399 | 84.23 | 10.62 |
| Did Not Disclose | 3 | 78.20 | 14.34 |
| | | | |
| Race/Ethnic | | | |
| African American | 52 | 84.34 | 11.10 |
| Alaskan Native or American Indian | 5 | 89.20 | 8.20 |
| Asian | 5 | 85.60 | 11.78 |
| Caucasian | 280 | 85.16 | 9.53 |
| Hispanic | 39 | 82.15 | 9.91 |
| Two or more | 7 | 78.57 | 18.32 |
| Did Not Disclose | 22 | 88.84 | 10.54 |



Table 6. NEFSP Written Composite Score (WC and WNC):
Breakdown by Sex, Race, and Ethnic Group ($n = 280$).

| | Descriptive Statistic | | |
|-----------------------------------|-----------------------|----------|-----------|
| Group | <i>n</i> | <i>M</i> | <i>SD</i> |
| Sex | | | |
| Female | 8 | 84.16 | 2.34 |
| Male | 269 | 86.37 | 4.00 |
| Did Not Disclose | 3 | 86.13 | 2.74 |
| | | | |
| Race/Ethnic | | | |
| African American | 37 | 84.10 | 4.13 |
| Alaskan Native or American Indian | 1 | 86.81 | -- |
| Asian | 3 | 87.77 | 2.61 |
| Caucasian | 187 | 87.02 | 3.66 |
| Hispanic | 19 | 85.14 | 4.89 |
| Two or more | 3 | 86.37 | 1.32 |
| Did Not Disclose | 19 | 85.15 | 3.42 |



Table 7. NEFSP Overall Composite Score (WC, WNC, and SO):
Breakdown by Sex, Race, and Ethnic Group ($n = 280$).

| | Descriptive Statistic | | |
|-----------------------------------|-----------------------|----------|-----------|
| Group | <i>n</i> | <i>M</i> | <i>SD</i> |
| Sex | | | |
| Female | 8 | 83.70 | 6.90 |
| Male | 269 | 83.00 | 7.84 |
| Did Not Disclose | 3 | 66.91 | 17.74 |
| | | | |
| Race/Ethnic | | | |
| African American | 36 | 82.85 | 7.23 |
| Alaskan Native or American Indian | 1 | 84.84 | -- |
| Asian | 5 | 96.53 | 10.83 |
| Caucasian | 187 | 83.96 | 7.08 |
| Hispanic | 29 | 81.35 | 7.42 |
| Two or more | 3 | 73.98 | 18.44 |
| Did Not Disclose | 13 | 85.66 | 7.79 |



Table 8. Fire Academy Composite Scores:
Breakdown by Sex, Race, and Ethnic Group ($n = 194$).

| | Descriptive Statistic | | |
|-----------------------------------|-----------------------|----------|-----------|
| Group | <i>n</i> | <i>M</i> | <i>SD</i> |
| Sex | | | |
| Female | 8 | 90.27 | 6.01 |
| Male | 184 | 91.45 | 5.82 |
| Did Not Disclose | 2 | 94.20 | 1.27 |
| | | | |
| Race/Ethnic | | | |
| African American | 28 | 89.42 | 5.10 |
| Alaskan Native or American Indian | 4 | 95.93 | 3.93 |
| Asian | 1 | 97.75 | . |
| Caucasian | 121 | 92.05 | 5.93 |
| Hispanic | 19 | 88.22 | 5.82 |
| Two or more | 4 | 93.57 | 4.53 |
| Did Not Disclose | 17 | 92.00 | 4.66 |



Table 9. Post-Hire Performance Composite Scores:
Breakdown by Sex, Race, and Ethnic Group ($n = 315$).

| | Descriptive Statistic | | |
|-----------------------------------|-----------------------|----------|-----------|
| Group | <i>n</i> | <i>M</i> | <i>SD</i> |
| Sex | | | |
| Female | 5 | 3.38 | .41 |
| Male | 310 | 3.44 | .43 |
| Did Not Disclose | 0 | -- | -- |
| | | | |
| Race/Ethnic | | | |
| African American | 33 | 3.38 | .36 |
| Alaskan Native or American Indian | 5 | 3.26 | .27 |
| Asian | 4 | 3.48 | .31 |
| Caucasian | 231 | 3.44 | .44 |
| Hispanic | 32 | 3.48 | .45 |
| Two or more | 6 | 3.35 | .30 |
| Did Not Disclose | 4 | 3.61 | .47 |



Table 10. Supplemental Performance Composite Scores:
Breakdown by Sex, Race, and Ethnic Group ($n = 67$).

| | Descriptive Statistic | | |
|-----------------------------------|-----------------------|----------|-----------|
| Group | <i>n</i> | <i>M</i> | <i>SD</i> |
| Sex | | | |
| Female | 2 | 7.29 | 1.20 |
| Male | 64 | 7.18 | 1.68 |
| Did Not Disclose | 1 | 6.87 | -- |
| | | | |
| Race/Ethnic | | | |
| African American | 11 | 6.62 | 1.84 |
| Alaskan Native or American Indian | 0 | -- | -- |
| Asian | 1 | 8.52 | -- |
| Caucasian | 45 | 7.37 | 1.63 |
| Hispanic | 6 | 6.23 | 1.66 |
| Two or more | 0 | -- | -- |
| Did Not Disclose | 4 | 7.72 | .62 |



Validity Coefficients

The purpose of the present study primarily is demonstrate the validity of the NEFSP for predicting job performance, the magnitude and direction of relationships between the NEFSP composite scores and the five criterion measures are depicted in the table below.

Validity coefficients are based on correlations (i.e., Pearson's product-moment coefficient). Correlations indicate the strength of association between two sets of scores. Their values range from 0 to 1 and can be either positive or negative. A value of zero would indicate no relationship between the two sets of variables. A value of 1.0 would indicate a perfect linear relationship.

Under each measure pairing (i.e., validity coefficient when the NESFP composite score is correlated with a criterion measure score) the analysis-specific sample size is presented in parentheses. Asterisks next to the correlations indicate the statistical significance of the value at standard levels, .05 and .01.



Table 11. Inter-correlation (Validity Coefficients) between
NEFSP Composite scores and Criterion Measure scores.

| Measure | Written Composite (WC/WNC) | Overall Composite (WC/WNC/SO) |
|---|----------------------------------|-------------------------------------|
| Fire Academy Composite | .24 * (102) | .08 (102) |
| Post-Hire Performance Review Composite | .05 (190) | .31 ** (190) |
| Supplemental Composite | .47 ** (67) | .29 * (67) |

* Indicates significant at .05 level; ** indicates significant at .01 level.

All correlations are uncorrected.

Parentheses indicate sample size.

Inspection of the above information reveals statistically significant validity coefficients which demonstrate that the NEFSP is a valid predictor of on-the-job performance.

As expected, positive but non-significant correlations were found when the Written Composite was correlated with Post-Hire Performance Review scores and when the Overall Composite score was correlated with Fire Academy scores because their respective content coverage included factors not logically related to the composite scores' content. For example, Fire Academy performance is largely an academic achievement metric, where as the Overall Composite covers more than mental abilities.



In the next table, we expand upon the NESFP information to show the validity coefficients after correcting them for restriction in range and criterion error (criterion reliability). These corrections were made only for those initial uncorrected correlations that were statistically significant. The corrected validity coefficients represent the best estimate of the true relationship between predictor and criterion based on the data available.

For comparative convenience, the first column repeats the uncorrected validity coefficients from the above table. Below each uncorrected validity coefficient, we constructed a 95% confidence interval (CI) around the uncorrected validity coefficients (see CI in parentheses).



Table 12 NESFP Validity Coefficients Corrected for Restriction in Range and Criterion Unreliability.

| Validity Coefficient | Validity Coefficients | | |
|--|--------------------------|---------------------------------|---|
| | Uncorrected (C.I.) | Corrected for Range Restriction | Corrected for Range Restriction and Criterion Reliability |
| Written Composite (WC & WNC) with Fire Academy Composite | .24 ** (0.11 to 0.37) | .28 | .66 |
| WC & WNC Composite (WC & WNC) with Supplemental Composite | .47 ** (0.32 to 0.62) | .56 | .57 |
| Overall Composite (WC, WNC, & SO) with Post-Hire Performance Composite | .31 ** (0.09 to 0.53) | .42 | .52 |
| Overall Composite (WC, WNC, & SO) with Supplemental Composite | .29 ** (0.07 to 0.51) | .39 | .40 |

For uncorrected coefficients, * indicates significant at .05 level; ** indicates significant at .01 level; and "C.I." indicates confidence interval.



Freedom from Bias

In the Validity Coefficient section, we established the relationship between the NEFSP and candidate performance during Fire Academy training as well as once on the job. These validity coefficients demonstrated the overall relationship between predictor and criterion measures; however, those coefficients do not inform issues that relate to potential test fairness. To examine the validation data for signs of possible bias, moderated regression analyses were performed.

Moderated regression analyses, also known as Cleary fairness analyses (Bartlett, Bobko, Mosier & Hannan, 1978), explore potential predictive bias by examining the relative contribution of job-related indicators (e.g., test score) or non job-related indicators (e.g., race, sex, or ethnicity) in explaining variation in job performance measures (e.g., supervisor evaluations).

For the present study, a series of moderated regression analyses were performed for each criterion measure. Each regression analysis regressed the criterion measure scores onto a model containing test score, group (race, sex, or ethnic group) and the interaction of test score and group. The combination of components in the series was guided by Lautenschlager and Mendoza (1986), where an omnibus test of bias is conducted first (Step 1: group and interaction entered after predictor score). Based on whether the omnibus test indicates that the addition of the group and interaction effects produced a significant result, the analyses either stops (omnibus test was not significant, therefore no bias indicated) or additional analyses are conducted to isolate the source of the significant omnibus test. The supplemental analyses are conducted first for the interaction effect (Step 2: interaction entered after predictor score and group),



then the group effect (Step 3: group entered after predictor score alone or group entered after predictor score and interaction). In Step 3, the results of Step 2 are used to determine whether the initial model components contain only the predictor score or both predictor and interaction. If Step 2 does not yield a significant interaction effect, Step 3 is conducted on predictor score and group. If Step 2 yields a significant interaction effect, Step 3 is conducted where the predictor score and interaction are entered first.

Group was a coded entry (0 or 1) where a “1” represented a minority group (i.e., female, Asian, Black or Hispanic) and “0” represented the non-minority employee group (Male or White). Analyses were conducted for race, sex, or ethnic groups that represented at more than two percent of the analysis sample; however, analyses were not conducted on other race, sex, or ethnic group designations (e.g., Two or More Races, “Other”, or “Did Not Disclose”). Some moderated regressions were not feasible because the group’s sample size was insufficient.

Below, each moderated regression results table presents amount of variance explained by the model (R^2), the change in the amount of variance explained due to the addition of new factors (ΔR^2) as well as the significance test for the change (ΔF), where asterisks indicate level of significance. To facilitate interpretation of the practical significance (as opposed to statistical significance), we also present the unstandardized Beta values for the interaction (B_{slope}) and group ($B_{intercept}$) effects. In addition, we centered the test scores (i.e., subtracting the mean from each individual’s score) to further aid in their interpretation.



Since operationally, composite NEFSP scores are used to make personnel decisions, we include only results for the moderated regressions where a NEFSP composite score was used in the model.



Table 13. Cleary Regression for
Fire Academy Criteria and Written Composite (WC & WNC) scores.

| Groups Compared by Regression Factors | R^2 | ΔR^2 | ΔF | B_{slope} | $B_{\text{intercept}}$ |
|---|-------|--------------|------------|--------------------|------------------------|
| Black and White ($n = 74$) | | | | | |
| Step 1 Omnibus | .20 | .01 | .38 | -.19 | .56 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Hispanic and White ($n = 68$) | | | | | |
| Step 1 Omnibus | .14 | .07 | 2.82 | -.60 | -3.04 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Female and Male ($n = 100$) | | | | | |
| Step 1 Omnibus | .12 | .05 | 2.86 | -2.08 | -5.93 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |

* $p < .05$; ** $p < .01$. Note: To facilitate interpretation of B , the continuous variable (test score), was centered on its mean.

"NA" indicates analysis of individual component models were not applicable because the omnibus test was not statistically significant.



Table 14. Cleary Regression for
Supplemental Performance Criteria & Written Composite (WC & WNC) scores.

| Groups Compared by Regression Factors | R^2 | ΔR^2 | ΔF | B_{slope} | $B_{\text{intercept}}$ |
|---|-------|--------------|------------|--------------------|------------------------|
| Black and White ($n = 56$) | | | | | |
| Step 1 Omnibus | .33 | .02 | .97 | -.19 | -.48 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Hispanic and White ($n = 51$) | | | | | |
| Step 1 Omnibus | .24 | .08 | 2.60 | -.26 | -.81 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Female and Male ($n = 67$) | | | | | |
| Step 1 Omnibus | .26 | .01 | .17 | -.44 | -.44 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |

* $p < .05$; ** $p < .01$. Note: To facilitate interpretation of B , the continuous variable (test score), was centered on its mean.

"NA" indicates analysis of individual component models were not applicable because the omnibus test was not statistically significant.



Table 15. Cleary Regression for Post-Hire Performance Criteria and Overall Composite (WC, WNC, & SO) scores.

| Groups Compared by Regression Factors | R^2 | ΔR^2 | ΔF | B_{slope} | $B_{intercept}$ |
|--|-------|--------------|------------|-------------|-----------------|
| Black and White ($n = 56$) | | | | | |
| Step 1 Omnibus | .10 | .00 | .02 | .01 | -.25 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Hispanic and White ($n = 160$) | | | | | |
| Step 1 Omnibus | .03 | .03 | 2.75 | .03 | .25 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Female and Male ($n = 74$) | | | | | |
| Step 1 Omnibus | .09 | .01 | .60 | -.04 | .29 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |

* $p < .05$; ** $p < .01$. Note: To facilitate interpretation of B , the continuous variable (test score), was centered on its mean.

"NA" indicates analysis of individual component models were not applicable because the omnibus test was not statistically significant.



Table 16. Cleary Regression for Supplemental Performance Criteria and Overall NEFSP Composite (WC, WNC, & SO) scores.

| Groups Compared by Regression Factors | R^2 | ΔR^2 | ΔF | B_{slope} | $B_{intercept}$ |
|---|-------|--------------|------------|-------------|-----------------|
| Black and White ($n = 56$) | | | | | |
| Step 1 Omnibus | .08 | .06 | 1.76 | -.10 | -.76 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Hispanic and White ($n = 74$) | | | | | |
| Step 1 Omnibus | .17 | .04 | 1.24 | -.01 | -1.04 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |
| Female and Male ($n = 66$) | | | | | |
| Step 1 Omnibus | .08 | .02 | .56 | .26 | .66 |
| Step 2 Slope | NA | | | | |
| Step 3 Intercept | NA | | | | |

* $p < .05$; ** $p < .01$. Note: To facilitate interpretation of B , the continuous variable (test score), was centered on its mean.

"NA" indicates analysis of individual component models were not applicable because the omnibus test was not statistically significant.

Inspection of the Cleary fairness results in the above four tables reveals that neither of the NEFSP composite scores was significantly influenced by sex, race or ethnic group membership. Since none of the omnibus tests (Step 1) were statistically significant, no further analyses were warranted.



ALTERNATIVE PROCEDURES INVESTIGATED [SECTION 15B(9)]

Whereas the preponderance of evidence demonstrates the NEFSP to a valid and selection process, a search for alternative procedures was not necessary. Still, Morris & McDaniel continually works closely with clients to maximize the benefits of the NESFP for each jurisdiction's unique needs and routinely conducts additional analyses to ensure consistency in results over time. Further, Morris & McDaniel advocates for the collection of additional local validation and fairness data for any use of the NESFP.

USES AND APPLICATIONS [SECTION 15B(10)]

The NEFSP is a valid and fair process for selecting entry-level fire personnel. Results for the NEFSP support its use for rank ordering or grouping entry-level firefighter candidates in conjunction with use of a cutoff score or other selection decision procedures. Morris & McDaniel typically does not recommend that any selection tool be relied upon solely when making critical personnel decisions.

SOURCE DATA [SECTION 15B(11)]

Morris & McDaniel maintains the source data for the descriptions, analyses, and results contained in this report in accordance with its data storage and maintain procedures.



CONTACT PERSON [SECTION 15B(12)]

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ACCURACY AND COMPLETENESS [SECTION 15B(13)]

Morris & McDaniel took numerous steps to ensure the accuracy and completeness of this report and the data upon which it was based. Data collection and storage is conducted in accordance with written procedures and other instructions designed to ensure the accuracy as well as the privacy and confidentiality of sensitive information. Established protocols and procedures were followed, including, but not limited to the following:

1. Experienced professionals directed the development, implementation, data collection and analysis of the NESFP.
2. Where feasible, Morris & McDaniel staff supervised or conducted the collection of criterion data.
3. The procedures used to guide the conduct of this study are in accordance with generally-accepted professional standards.
4. Data collection methods and procedures were structured and standardized in a manner to reduce data entry errors.



5. Data and results were verified for accuracy through the use of various proprietary algorithms and by checking random samples of entries against hard copy or other original data sources.
6. All Morris & McDaniel staff involved in the study received training on relevant procedures.



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APPENDIX A
O*NET
Summary Report for:
33-2011.01 - Municipal Firefighters

[Source: <https://www.onetonline.org/link/summary/33-2011.01>]

Control and extinguish municipal fires, protect life and property and conduct rescue efforts.

Tasks

- Rescue victims from burning buildings and accident sites.
- Search burning buildings to locate fire victims.
- Administer first aid and cardiopulmonary resuscitation to injured persons.
- Dress with equipment such as fire-resistant clothing and breathing apparatus.
- Drive and operate fire fighting vehicles and equipment.
- Move toward the source of a fire, using knowledge of types of fires, construction design, building materials, and physical layout of properties.
- Respond to fire alarms and other calls for assistance, such as automobile and industrial accidents.
- Assess fires and situations and report conditions to superiors to receive instructions, using two-way radios.
- Position and climb ladders to gain access to upper levels of buildings, or to rescue individuals from burning structures.
- Create openings in buildings for ventilation or entrance, using axes, chisels, crowbars, electric saws, or core cutters.
- Lay hose lines and connect them to water supplies.
- Operate pumps connected to high-pressure hoses.
- Collaborate with police to respond to accidents, disasters, and arson investigation calls.



- Take action to contain hazardous chemicals that might catch fire, leak, or spill.
- Select and attach hose nozzles, depending on fire type, and direct streams of water or chemicals onto fires.
- Participate in fire drills and demonstrations of fire fighting techniques.
- Prepare written reports that detail specifics of fire incidents.
- Participate in physical training activities to maintain a high level of physical fitness.
- Participate in courses, seminars and conferences, and study fire science literature, to learn firefighting techniques.
- Inspect fire sites after flames have been extinguished to ensure that there is no further danger.
- Clean and maintain fire stations and fire fighting equipment and apparatus.
- Inspect buildings for fire hazards and compliance with fire prevention ordinances, testing and checking smoke alarms and fire suppression equipment as necessary.
- Inform and educate the public on fire prevention.
- Protect property from water and smoke, using waterproof salvage covers, smoke ejectors, and deodorants.
- Establish firelines to prevent unauthorized persons from entering areas near fires.
- Salvage property by removing broken glass, pumping out water, and ventilating buildings to remove smoke.
- Spray foam onto runways, extinguish fires, and rescue aircraft crew and passengers in air-crash emergencies.



Knowledge

- Public Safety and Security — Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.
- Customer and Personal Service — Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
- Education and Training — Knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.
- Mechanical — Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
- Building and Construction — Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.
- English Language — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
- Administration and Management — Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
- Law and Government — Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process.
- Transportation — Knowledge of principles and methods for moving people or goods by air, rail, sea, or road, including the relative costs and benefits.
- Geography — Knowledge of principles and methods for describing the features of land, sea, and air masses, including their physical characteristics, locations, interrelationships, and distribution of plant, animal, and human life.



Skills

- **Active Listening** — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
- **Coordination** — Adjusting actions in relation to others' actions.
- **Critical Thinking** — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- **Operation Monitoring** — Watching gauges, dials, or other indicators to make sure a machine is working properly.
- **Monitoring** — Monitoring Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
- **Operation and Control** — Controlling operations of equipment or systems.
- **Service Orientation** — Actively looking for ways to help people.
- **Instructing** — Teaching others how to do something.
- **Judgment and Decision Making** — Considering the relative costs and benefits of potential actions to choose the most appropriate one.
- **Speaking** — Talking to others to convey information effectively.
- **Learning Strategies** — Selecting and using training instructional methods and procedures appropriate for the situation when learning or teaching new things.
- **Reading Comprehension** — Understanding written sentences and paragraphs in work related documents.
- **Social Perceptiveness** — Being aware of others' reactions and understanding why they react as they do.
- **Complex Problem Solving** — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- **Active Learning** — Understanding the implications of new information for both current and future problem-solving and decision-making.
- **Equipment Maintenance** — Performing routine maintenance on equipment and determining when and what kind of maintenance is needed.
- **Time Management** — Managing one's own time and the time of others.
- **Troubleshooting** — Determining causes of operating errors and deciding what to do about it.
- **Writing** — Communicating effectively in writing as appropriate for the needs of the audience.



Abilities

- **Problem Sensitivity** — The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- **Reaction Time** — The ability to quickly respond (with the hand, finger, or foot) to a signal (sound, light, picture) when it appears.
- **Arm-Hand Steadiness** — The ability to keep your hand and arm steady while moving your arm or while holding your arm and hand in one position.
- **Manual Dexterity** — The ability to quickly move your hand, your hand together with your arm, or your two hands to grasp, manipulate, or assemble objects.
- **Multilimb Coordination** — The ability to coordinate two or more limbs (for example, two arms, two legs, or one leg and one arm) while sitting, standing, or lying down. It does not involve performing the activities while the whole body is in motion.
- **Response Orientation** — The ability to choose quickly between two or more movements in response to two or more different signals (lights, sounds, pictures). It includes the speed with which the correct response is started with the hand, foot, or other body part.
- **Deductive Reasoning** — The ability to apply general rules to specific problems to produce answers that make sense.
- **Oral Comprehension** — The ability to listen to and understand information and ideas presented through spoken words and sentences.
- **Rate Control** — The ability to time your movements or the movement of a piece of equipment in anticipation of changes in the speed and/or direction of a moving object or scene.
- **Speech Recognition** — The ability to identify and understand the speech of another person.
- **Static Strength** — The ability to exert maximum muscle force to lift, push, pull, or carry objects.
- **Control Precision** — The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- **Flexibility of Closure** — The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
- **Near Vision** — The ability to see details at close range (within a few feet of the observer).
- **Oral Expression** — The ability to communicate information and ideas in speaking so others will understand.
- **Stamina** — The ability to exert yourself physically over long periods of time without getting winded or out of breath.



- **Auditory Attention** — The ability to focus on a single source of sound in the presence of other distracting sounds.
- **Depth Perception** — The ability to judge which of several objects is closer or farther away from you, or to judge the distance between you and an object.
- **Dynamic Strength** — The ability to exert muscle force repeatedly or continuously over time. This involves muscular endurance and resistance to muscle fatigue.
- **Extent Flexibility** — The ability to bend, stretch, twist, or reach with your body, arms, and/or legs.
- **Inductive Reasoning** — The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- **Information Ordering** — The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
- **Selective Attention** — The ability to concentrate on a task over a period of time without being distracted.
- **Speech Clarity** — The ability to speak clearly so others can understand you.
- **Trunk Strength** — The ability to use your abdominal and lower back muscles to support part of the body repeatedly or continuously over time without 'giving out' or fatiguing.
- **Visualization** — The ability to imagine how something will look after it is moved around or when its parts are moved or rearranged.
- **Far Vision** — The ability to see details at a distance.
- **Gross Body Coordination** — The ability to coordinate the movement of your arms, legs, and torso together when the whole body is in motion.
- **Gross Body Equilibrium** — The ability to keep or regain your body balance or stay upright when in an unstable position.
- **Speed of Limb Movement** — The ability to quickly move the arms and legs.
- **Time Sharing** — The ability to shift back and forth between two or more activities or sources of information (such as speech, sounds, touch, or other sources).
- **Finger Dexterity** — The ability to make precisely coordinated movements of the fingers of one or both hands to grasp, manipulate, or assemble very small objects.
- **Perceptual Speed** — The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same time or one after the other. This ability also includes comparing a presented object with a remembered object.
- **Spatial Orientation** — The ability to know your location in relation to the environment or to know where other objects are in relation to you.



- **Speed of Closure** — The ability to quickly make sense of, combine, and organize information into meaningful patterns.
- **Written Comprehension** — The ability to read and understand information and ideas presented in writing.
- **Visual Color Discrimination** — The ability to match or detect differences between colors, including shades of color and brightness.
- **Written Expression** — The ability to communicate information and ideas in writing so others will understand.



Work Styles

- **Dependability** — Job requires being reliable, responsible, and dependable, and fulfilling obligations.
- **Cooperation** — Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude.
- **Integrity** — Job requires being honest and ethical.
- **Concern for Others** — Job requires being sensitive to others' needs and feelings and being understanding and helpful on the job.
- **Self Control** — Job requires maintaining composure, keeping emotions in check, controlling anger, and avoiding aggressive behavior, even in very difficult situations.
- **Stress Tolerance** — Job requires accepting criticism and dealing calmly and effectively with high stress situations.
- **Attention to Detail** — Job requires being careful about detail and thorough in completing work tasks.
- **Adaptability Flexibility** — Job requires being open to change (positive or negative) and to considerable variety in the workplace.
- **Initiative** — Job requires a willingness to take on responsibilities and challenges.
- **Persistence** — Job requires persistence in the face of obstacles.
- **Leadership** — Job requires a willingness to lead, take charge, and offer opinions and direction.
- **Social Orientation** — Job requires preferring to work with others rather than alone, and being personally connected with others on the job.
- **Analytical Thinking** — Job requires analyzing information and using logic to address work-related issues and problems.
- **Achievement Effort** — Job requires establishing and maintaining personally challenging achievement goals and exerting effort toward mastering tasks.
- **Innovation** — Job requires creativity and alternative thinking to develop new ideas for and answers to work-related problems.
- **Independence** — Job requires developing one's own ways of doing things, guiding oneself with little or no supervision, and depending on oneself to get things done.



APPENDIX H

Sample Job Analysis Report Sample



CITY OF JURISDICTION

FIRE DEPARTMENT

JOB ANALYSIS REPORT

**FOR THE
RANK
OF**

ENTRY-LEVEL FIREFIGHTER



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EXECUTIVE SUMMARY

The City of Jurisdiction Fire Department (Department) needed selection procedures for the rank of Entry-Level Firefighter and requested that Morris & McDaniel, Inc., a consulting firm experienced in these procedures, provide assistance for this purpose. The first step in developing this system was to conduct a job analysis of the position. A job analysis is the systematic process of collecting, processing, analyzing, and interpreting data about a job or jobs. This job analysis forms the basis of the content validity for the selection procedures and supports other validation strategies. Therefore, the job analysis data were collected in accordance with the Division 14 Principles for the Validation and Use of Personnel Selection Procedures: Fourth Edition. Also, deference was given to the requirements for the Uniform Guidelines on Employee Selection Procedures.

The results of this job analysis identified important tasks and skills, abilities, and other characteristics (SAOs). These important tasks and SAOs are presented in this report. The inventories of tasks and SAOs that were rated by the SMEs are provided in the appendices.

The job analysis was used to guide the development and implementation of an evaluation program. The method of evaluation of a candidate for selection on a SAO may include, but is not limited to, a written examination, an assessment center or performance based assessment, a training program, and a probationary period. The method of evaluation is dependent on the appropriateness of measurement for the particular SAO. For example, certain skills such as spatial orientation can be evaluated very effectively in a written examination, whereas ability to communicate orally is more appropriately evaluated through a performance based assessment technique such as an oral board or an assessment center. The results of this job analysis study are documented and supported in this report.



I. INTRODUCTION



I. INTRODUCTION

Morris & McDaniel, Inc., is pleased to submit this job analysis report for the position of Entry-Level Firefighter with the City of Jurisdiction Fire Department (Department). This report documents the phases of the job analysis. An outline of the major steps in this process are as follows:

- Orientation/Planning Discussions
- Review of the Literature
- Conduct On-Site Job Observations
- Development of Lists of Tasks and Skills, Abilities and Other Characteristics (SAOs)
- Administration of Task Inventory to the Subject Matter Expert (SME) Rating Panel
- Analysis of Task Inventory Ratings
- Administration of SAO Inventory to the SME Rating Panel
- Analysis of SAO Inventory Ratings
- Conclusion

The remainder of this report will provide the details of each of the above process components.



II. METHODOLOGY



II. METHODOLOGY

A job analysis is the systematic process of collecting, processing, analyzing, and interpreting data about a particular job or jobs. The data are gathered to determine what workers do in the targeted job. In addition, after the process defines and documents the work behaviors that are performed by the job incumbents, it then identifies the skills, abilities, and other characteristics (SAOs) that are required to perform the work behaviors competently.

The job analysis data, collected in accordance with the Division 14¹ Principles for the Validation and Use of Personnel Selection Procedures: Fourth Edition, will be used in the validation strategy. In addition, deference was given to the Uniform Guidelines on Employee Selection Procedures.

A. Orientation/Planning Discussions

Orientation/planning discussions took place Month Day, 2015 in Jurisdiction, State, at Specified Location. Principals of Morris & McDaniel, Inc., participated in these discussions. Included in these discussions with -----, representing Morris & McDaniel, were -----, representing the Jurisdiction. The objectives, dates, and goals of the project were discussed and refined. Project components were identified and discussed. Time lines including project milestones were developed.

¹ Division 14 of the American Psychological Association is the Society of Industrial/Organizational Psychologists.



B. Review of the Literature

Morris & McDaniel, Inc., gathered available relevant job information for the job of Entry-Level Firefighter and additional data from the Department and from past job analyses from other jurisdictions.

C. Conduct On-Site Job Observations

Morris & McDaniel personnel conducted job observations on Month Day, 2015. Morris & McDaniel personnel observed Firefighters. Their observations were helpful in creating a draft task and SAO list for the technical conference of the SME's. Table 1 provides the biographical data on the job observations conducted.

D. Development of Lists of Tasks & SAOs

After reviewing the data relevant to the targeted position, job analysts from Morris & McDaniel, Inc., assembled a list of tasks, which could be performed by persons in the Entry-Level Firefighter position. Each task contained a brief description of a specific activity that could be performed and conditions (if relevant) under which the task is performed. For ease of administration and discussion, the tasks were rationally grouped into clusters of common or related duties within the job. A list of possible skills, abilities, and other characteristics (SAOs) was also developed.

E. Administration of Task Inventory

On Month Day, 2015, subject matter experts (SMEs) for the rank of Entry-Level Firefighter participated in the Task and SAO rating sessions. The SMEs were of the rank of Entry-Level Firefighter or higher. A total of number (-) SMEs rated the Task Inventory. The list of SMEs participating in the Task rating session is presented in Table 2. Table 3 provides the biographic data on the SMEs that participated in the Task rating session. The instructions for the rating session and the complete Task Inventory are presented in Appendix A. The Task Rating Form used is presented in Appendix B.

TABLE 1
SUMMARY OF BIOGRAPHICAL DATA ON JOB OBSERVATIONS

| Gender | Ethnicity | Education | Current Rank | Total Length of Service in Department |
|--------|-----------|-----------|--------------|---------------------------------------|
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TABLE 2

**SUBJECT MATTER EXPERTS WHO PARTICIPATED
IN TASK RATINGS**



TABLE 3
SUMMARY OF BIOGRAPHICAL DATA ON SMEs
(TASK RATING SESSION)

| Gender | Ethnicity | Education | Current Rank | Total Length of Service in Department | Total Length of Service in Current Rank |
|--------|-----------|-----------|--------------|---------------------------------------|---|
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Data from the Task Inventory ratings were compiled and analyzed in the offices of Morris & McDaniel, Inc. The Task Inventory package for Entry-Level Firefighter is shown in Appendix A.

The SMEs were asked to rate each task in the inventory on the following two categories:

1. In general, how often do you perform this task?
 - Never
 - Annually or less often
 - Quarterly (approx. 4 times/year)
 - Monthly (approx. 1 time/month)
 - Weekly (approx. 1 time/week)
 - Semi-Weekly (approx. 2 to 6 times/week)
 - Daily (approx. 1 to 6 times/day)
2. How important is this task for performing your job effectively?
 - Not important
 - Of little importance
 - Of some importance
 - Important
 - Very important
 - Extremely important



F. Analysis of Task Inventory Ratings

The criteria established for a task to be retained as an important task was that two-thirds (2/3) of the raters must say it was performed annually or less often, quarterly, monthly, weekly, semi-weekly or daily; and that it was important, very important or extremely important to perform the job effectively. Any task ratings that did not meet this required level of agreement were eliminated as not meeting criteria. Analysis of the SME ratings of each task on 2 categories (frequency of task performance and task importance; categories 1 and 2 respectively) were performed using the 2/3 level of agreement. The prior established criteria for each task to be included as important to the Entry-Level Firefighter position where two thirds (2/3) of the SMEs had to rate the task were as follows: 1) performed annually or less often, quarterly, monthly, weekly, semi-weekly or daily; 2) important, very important or extremely important.

The SME ratings are summarized in Appendix E. The final list of important tasks resulting from this analysis is presented in Table 4.

TABLE 4
TASK LIST MEETING TEST CRITERIA
(SAMPLE)

I. RESPONDING TO ALARMS (RECEIVING, PROCESSING, AND TRANSMITTING ALARMS)

This duty statement refers to all activities involved with receiving, responding, and transmitting alarms.

1. Puts on protective clothing.
2. Identifies and demonstrates knowledge of geographic locations assigned for first alarm response.

II. FIREFIGHTING AND EXTINGUISHING OPERATIONS

This duty statement refers to putting hose line in service and controlling and operating hose to extinguish fire or reduce its intensity; uses ropes and specialized hand tools and equipment to enter and to fight the fire.

3. Assesses material and color of smoke to ascertain what is burning. Responds with appropriate extinguishing agent.
4. Responds to orders given with visual signals.
5. Examines fire structure for any signs of fire extension.
6. ...

III. "POST-FIRE" OPERATIONS, SALVAGE AND OVERHAUL, INVENTORY, RETURN TO STATION

This duty statement refers to clean up, salvage and protection of civilian and fire department property, inventories and replaces fire department property to apparatus.

87. Protects fire department and civilian property from damage; piles furniture, clothing, and other valuables, and covers piled property, walls, floors, and stairways with salvage covers, tarps, and floor runners.
88. Carries undamaged furniture from buildings to prevent smoke, fire, and water damage to furniture.

...



G. Administration of SAO Inventory

On Month Day, 2015, the skills, abilities, and other characteristics (SAOs) for the rank of Entry-Level Firefighter were rated by SMEs. A total of number (-) SMEs rated the SAO inventory. Table 5 shows the SMEs participating in the SAO rating session. The biographical data for these SMEs is presented in Table 6. Appendix C presents the rating instructions and the SAO Inventory, and Appendix D presents the SAO Rating Form used.

TABLE 5

**SUBJECT MATTER EXPERTS WHO PARTICIPATED
IN SAO RATINGS**

Data from the SAO inventory ratings were compiled and analyzed in the offices of Morris & McDaniel, Inc. The SAO Inventory package for Entry-Level Firefighter is shown in Appendix C.

The SAOs were rated in relation to the job on the following four categories:

- 1) How important is the SAO for performing your job effectively?
 - Not important
 - Of little importance
 - Of some importance
 - Important
 - Very important
 - Extremely important
- 2) When is the SAO learned?
 - Before assignment to this job (pre-training)
 - After assignment to this job (post-training)
- 3) How long does it take to learn and become proficient at the skill or ability?
 - A brief orientation period (a few hours)
 - A longer orientation period (more than few hours)
- 4) To what extent do different levels of the SAO distinguish the superior from the average worker (compared with the other SAOs)?
 - Very little or none
 - To some extent
 - To a great extent
 - To a very great extent
 - To an extremely great extent

The SAOs were rated on the form presented in Appendix D to determine which were appropriate for selection testing purposes.



TABLE 6
SUMMARY OF BIOGRAPHICAL DATA ON SMEs
(SAO RATING SESSION)

| Gender | Ethnicity | Education | Current Rank | Total Length of Service in Department | Total Length of Service in Current Rank |
|--------|-----------|-----------|--------------|---------------------------------------|---|
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H. Analysis of SAO Inventory Ratings

The SME ratings of each SAO on each of the categories were performed. For a SAO to be included as an important component of the Entry-Level Firefighter position, the SAO had to be rated as follows by the SMEs: **1)** important, very important or extremely important to performing the job effectively; **2)** learned before assignment to the job; **3)** longer than a brief orientation period; **4)** distinguishes performance to a great, very great or extremely great extent; **5)** two-thirds (2/3) of the raters had to agree for a SAO to be retained.

The SME ratings are summarized in Appendix F. A list of the SAOs that were retained after the review can be found in Table 7.

TABLE 7
SAO LIST MEETING TEST CRITERIA
(SAMPLE)

A. Reading Comprehension

The Fire Fighter job requires:

- 1 Ability to use and interpret instructional materials to enhance or update job knowledge .

...

B. Written Communication

The Fire Fighter job requires:

4. Ability to document incidents and actions accurately, completely and legibly using standard forms.

...

C. Listening /Comprehension

The Fire Fighter job requires:

8. Ability to understand the spoken English language.
9. Ability to understand and follow oral instructions from others.

...

D. Oral Communication

The Fire Fighter job requires:

12. Ability to articulate ideas clearly.

...



I. Conclusion

Lists of tasks and skills, abilities, and other characteristics (SAOs) were developed by Morris & McDaniel, Inc. These lists (task list and SAO list) included data from the Department. These lists were edited and rated by subject matter experts (SMEs) from the Department. The SME panel agreed that many of the lists were relevant for the job of Entry-Level Firefighter. The two-thirds level of agreement, where 2/3 of the raters had to agree for the task or SAO to be retained, was used to determine task and SAO importance, to designate tasks and SAOs that met test criteria, and to decide which should be retained for further study.



APPENDIX A

TASK RATING INSTRUCTIONS AND TASK LIST



APPENDIX B

TASK RATING FORM



APPENDIX C

SAO RATING ISNTRUCTIONS AND SAO LIST



APPENDIX D

SAO RATING FORM



APPENDIX E

SUMMARY OF SME TASK RATINGS



APPENDIX F

SUMMARY OF SME SAO RATINGS



APPENDIX I

Sample Transportability Study



CITY OF JURISDICTION

FIRE DEPARTMENT

MODEL FOR TRANSPORTABILITY STUDY FOR THE ENTRY-LEVEL FIRE EXAM



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I. Transportability Study for the NELF (National Entry-Level Firefighters Exam)

Transportability refers to the process of demonstrating the validity of a testing procedure that can be used in a new jurisdiction without the necessity of conducting a separate local validation study. By showing substantial comparability between the job upon which the original validation study was conducted and the targeted job in the new jurisdiction, “transportability” of the validation evidence is established. Conducted in this manner, we can conclude the validity of the original study can be generalized to the new jurisdiction. The underlying job analysis of the original and targeted positions are key to demonstrating comparability. Below, we summarize the comparability between these positions. In addition, we attach the firefighter job analysis for the City of Jurisdiction (Appendix A) and the firefighter job analysis for the Major City upon which the test’s validity study was conducted (Appendix B).

Comparison of the major work behaviors.

The Duties included in the inventory describe the major work behaviors of the entry level fire position in the jurisdiction in which our validity study was conducted. In order to determine the similarity of jobs we need to know if these Duties (or most of them) are also important for Fire Entry-Level position in Jurisdiction Fire Department. A full job analysis was conducted which showed that the duties for the jurisdiction in which our validation study was conducted are substantially the same as those for Jurisdiction.

COMPARING

The Job Analysis for Jurisdiction shows that the Skills, Abilities and Other Characteristics (SAOs) are substantially the same for the two jurisdictions. On the next two pages, we present comparisons of duties and SAOs which show that the jobs are substantially the same.



City of Jurisdiction Entry-Level Firefighter

Comparison of the Duties shows that the jobs are substantially the same.

| Major Midwestern City Entry-Level Firefighter Job | | | Jurisdiction Entry-Level Firefighter Job | | |
|---|--|-------------------------|--|--|-------------------------|
| Duties | | Important for Both Jobs | Duties | | Important for Both Jobs |
| I. | Responding to alarms (receiving, processing, and transmitting alarms) | ✓ | I. | Responding to alarms (receiving, processing, and transmitting alarms) | ✓ |
| II. | Firefighting and extinguishing operations | ✓ | II. | Firefighting and extinguishing operations | ✓ |
| III. | “Post-fire” operations, salvage and overhaul, inventory, return to station | ✓ | III. | “Post-fire” operations, salvage and overhaul, inventory, return to station | ✓ |
| IV. | Performing special emergency operations | ✓ | IV. | Performing special emergency operations | ✓ |
| V. | Accessing fire scenes, rescuing victims and providing first aid and assistance. | ✓ | V. | Accessing fire scenes, rescuing victims and providing first aid and assistance. | ✓ |
| VI. | Respond to medical emergency calls | | | | |
| VII. | Fire prevention, inspection, code enforcing activities including false alarms. | ✓ | VI. | Fire prevention, inspection, code enforcing activities including false alarms. | ✓ |
| VIII. | Inspecting, testing, cleaning and maintenance of apparatus and equipment | ✓ | VII. | Inspecting, testing, cleaning and maintenance of apparatus and equipment | ✓ |
| IX. | Fire/arson investigations. | ✓ | VIII. | Fire/arson investigations. | ✓ |
| X. | Training activities, preplanning and preparing for fires; conducting and participating in drills | ✓ | IX. | Training activities, preplanning and preparing for fires; conducting and participating in drills | ✓ |
| XI. | General management, administration, house watch, and related firehouse duties | ✓ | X. | General management, administration, house watch, and related firehouse duties | ✓ |
| XII. | Public relations/community activities | ✓ | XI. | Public relations/community activities | ✓ |
| XIII. | Routing to and positioning of apparatus at fireground | | | | |



City of Jurisdiction Entry-Level Firefighter

Comparison of the SAOs shows that the jobs are substantially the same.

| Major Midwestern City Entry-Level Fire Job | | | Jurisdiction Entry-Level Fire Job | | |
|--|---|-------------------------|--|---|-------------------------|
| Skills, Abilities, and Other Characteristics | | Important for Both Jobs | Skills, Abilities, and Other Characteristics | | Important for Both Jobs |
| 1. | Associative Memory | ✓ | 151. | Associative Memory | ✓ |
| 2. | Observational Judgment (Flexibility of Closure) | ✓ | 152. | Observational Judgment (Flexibility of Closure) | ✓ |
| 3. | Mathematical Computation | ✓ | 153. | Mathematical Computation | ✓ |
| 4. | Mechanical Reasoning | ✓ | 154. | Mechanical Reasoning | ✓ |
| 5. | Memory for Ideas | ✓ | 155. | Memory for Ideas | ✓ |
| 6. | Reading Comprehension | ✓ | 156. | Reading Comprehension | ✓ |
| 7. | Spatial Orientation | ✓ | 157. | Spatial Orientation | ✓ |
| 8. | Spatial Scanning | ✓ | 158. | Spatial Scanning | ✓ |
| 9. | Oral Communication | ✓ | 159. | Oral Communication | ✓ |
| 10. | Problem Identification & Analysis | ✓ | 160. | Problem Identification & Analysis | ✓ |
| 11. | Decision Making | ✓ | I. | Decision Making | ✓ |
| 12. | Written Communication | ✓ | B. | Written Communication | ✓ |
| 13. | Teamwork and Cooperation | ✓ | R. | Teamwork and Cooperation | ✓ |

CONCLUSION

A comparison of the Duties and the SAOs shows the jobs to be substantially the same and the NELF test is appropriate to assess the candidates for the Jurisdiction job.



APPENDIX J

Sample Entry-Level Firefighter Study Guide



NOTES

Price Proposal

Price Proposal - Information described is required from each Offeror. The City will retain ten percent (10%) of each step of the contractual price until Steps 1 – 4 and Steps 5 – 6 have been submitted and accepted. After completion and acceptance of Steps 1 – 4, the Successful Contractor shall submit an invoice for the 10% retained. After completion and acceptance of Steps 5 – 6, the Successful Contractor shall submit an invoice for the 10% retained.

Based on Section 0500 Scope of Work, Item 3.1, list your not-to-exceed costs for the deliverables at each Step defined in Sec. 4.0, assuming that each assessment will be administered to 2,500 candidates. Your not-to-exceed price should be a total cost number including all personnel costs, administrative and overhead costs, fees, travel costs, and all other costs that would be charged to the City. If the cost of a Step varies by the number of candidates being assessed, number of sessions conducted, or other factors, provide a specific, quantifiable description of how the cost varies at that Step. The total of all milestone Step payments should equal the total project not-to-exceed cost for a single testing cycle. Provide your cost breakdown in the following format:

| Milestone Step | TOTAL Not-to-Exceed Price for 2,500 Candidates |
|--|--|
| STEP 1: Pre-Work | \$20,000.00 |
| STEP 2: Development of Assessment Plan and Materials | \$35,000.00 |
| STEP 3: Assessment Administration | \$55,000.00 |
| STEP 4: Assessment Scoring | \$120,000.00 |
| STEP 5: Analysis of Results | \$32,500.00 |
| STEP 6: Final Evaluation | \$15,000.00 |
| TOTAL PROJECT COST | \$277,500.00 |

Additionally, the City shall compensate the successful Contractor at a pre-determined hourly rate for any such testimony requested by the City. Include this rate in this section of your Offer.

NOTE 1: Should the City elect to adopt our continuous testing protocol in any subsequent renewal years, we agree to implement the process at a price of \$187,500.00 so long as candidate numbers remain at a level of 2,500 per year or less. In those years when total candidate numbers for the contract year should exceed the total of 2,500, we will continue the scoring process and report the results for the price of \$50 per each candidate tested over 2,500.

NOTE 2: Should considerations associated with the Covid 19 Pandemic require scoring to be accomplished using our remote teleconference panel scoring, there will need to be an extra \$10,000 added to Step 4.

Service-Disabled Veteran Business Enterprise Preference

| |
|-------------------------|
| Offeror Name |
| MORRIS + Mc DANIEL, INC |

Additional Solicitation Instructions.

- ☒ By checking this box, Offeror states they are NOT a certified Service-Disabled Veteran Business Enterprise seeking to claim preference points under the City of Austin's SDVBE Program.
- Offerors seeking to claim the Service-Disabled Veteran Business Enterprise (SDVBE) preference shall be certified **under one of the two following scenarios**. Offerors shall check one of the following boxes, input the data in the applicable table below and include this completed form in their Proposal.
 - ☐ **HUB/SV**. Offeror is certified as a Service-Disabled Veteran (SV) Historically Underutilized Business (HUB) by the Texas State Comptroller of Public Accounts.

| Texas State HUB/SV Certification | |
|----------------------------------|--|
| 13-Digit Vendor ID (VID) | |
| HUB/SV Issue Date | |
| HUB/SV Expiration Date | |

- ☐ **HUB/OTHER + Federal SDVOSB**. Offeror is certified by the Texas State Comptroller of Public Accounts as a Historically Underutilized Business in a HUB Eligibility Category other than Service-Disabled Veteran (SV) AND is verified by the US Veterans Administration as a Service-Disabled Veteran-Owned Small Business (SDVOSB). **Texas HUB Eligibility Categories:** HUB/BL (Black), HUB/AS (Asian), HUB/HI (Hispanic), HUB/AI (Native American), or HUB/WO (Women Owned).

| Texas State HUB/OTHER Certification | |
|-------------------------------------|--|
| 13-Digit Vendor ID (VID) | |
| HUB Eligibility Category | |
| HUB Issue Date | |
| HUB Expiration Date | |

| Federal SDVOSB Verification | |
|-----------------------------|--|
| 9-Digit DUNS | |
| SDVOSB Issue Date | |
| SDVOSB Expiration Date | |

- Offeror Identity.** The Offeror submitting the Proposal shall be the same entity that is certified by the Texas State Comptroller of Public Accounts, AND if applicable as verified by the US Veterans Administration.
- Certification Status.** Offeror's certification(s) must be active on or before the Solicitation's due date for Proposals and shall not expire prior to the award and execution of any resulting contract.
- Confirmation of Certification(s).** Upon receipt of this completed form, the City will confirm the Offeror's certification(s): State: <https://mycpa.cpa.state.tx.us/tpasscmblsearch>. Federal: <https://www.vip.vetbiz.va.gov/> The City will direct any questions concerning an Offeror's State or Federal certification status to the Offeror's contact person as designated on the Offer Form of their Proposal.
- Misrepresentation.** If the City determines that the Offeror requesting this preference is not certified by the State or Federal government if applicable, the Offeror will not receive the preference points. If the City determines that this misrepresentation was intentional, the City may also find the Offeror not responsible and may report the Offeror to the Texas State Comptroller of Public Accounts or if applicable to the US Veterans Administration. If the misrepresentation is discovered after contract award, the City reserves the right to void the contract.

CITY OF AUSTIN FIRE DEPARTMENT

TRANSPORTABILITY STUDY FOR THE RANK OF ENTRY-LEVEL FIREFIGHTER



Submitted by:

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Appendix A National Entry Level Fire Examination - Midwestern City Job Analysis
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I. INTRODUCTION

Morris & McDaniel, Inc. is pleased to submit this transportability study for the position of Entry-Level Firefighter with the City of Austin Fire Department (Department). The purpose of this transportability study is to demonstrate that the existing validity of inferences from the Entry-level Firefighter Examination scores can be generalized to the Department for use as a selection procedure for their Entry-level Firefighter position. Under the Uniform Guidelines [SECTION 7B], a previously-developed selection procedure can be used, without having first conducted a local validation study, when the following three criteria are met: (1) the procedure is valid, (2) the procedure is fair, and (3) the major work duties of the target job are similar to the duties of the job which the validity evidence.

This report focuses on the third criterion, namely the comparability of the Department's targeted position with the job used in the original validation study. Since the validity and fairness criteria are pre-conditions in establishing the transportability of the Entry-Level Firefighter exam and are described in detail separately, we provide a brief overview of this information before comparing the job duties.



II. OVERVIEW OF THE ENTRY-LEVEL FIREFIGHTER EXAM

A. Overview of the Test

Morris & McDaniel, Inc. designed and developed the Entry-level Firefighter examination to measure job applicant's potential for future success if hired as an entry-level firefighter. The content of the examination is divided into two components: a component that taps into specific, distinct abilities and a non-cognitive/behavioral component. The specific abilities component covers: Memorization, Reading Comprehension, Mechanical Reasoning, Verbal Reasoning, Spatial Orientation, and Mathematical Computation. For the behavioral component, fundamental values, work ethic and basic counter productive work behaviors are targeted. The examination assesses an individual's performance in these example areas. The abilities component of the exam contained 91 multiple-choice items. Each multiple-choice item presented four response options. The non-cognitive/behavioral component consisted of 124 items, also in a multiple-choice format. The number of response options presented with the multiple-choice items on the non-cognitive component varied, ranging from two to ten response options. On both the abilities and non-cognitive components, for each question or scenario, the exam takers are instructed to choose the response that is the most accurate or appropriate. Responses are machine scored.

Readability Analysis

A readability analysis was performed on the exam. The analyses review the reading demands determined by the exam's structure, complexity, and word choice. Morris & McDaniel's readability analysis includes standard readability indices, such as the Flesch-Kincaid, as well as other algorithms that focus on unique elements of sentence and word structure. We average the results from multiple methods (Flesch-Kincaid, Gunning-Fox, Automated Reliability Index, and FORCAST) to obtain an overall reading level estimate (grade level) because job-



specific terminology or jargon creates variation in reading level estimates. Further, some methods rely more heavily on specific written content components (e.g., number of syllables).

The average reading grade level of the Written Exam is 7.2 ($SD = 1.7$), meaning that the text is expected to be understood by the average 6th or 7th grade student. The average reading grade level of the non-cognitive component is 7.0 ($SD = 1.9$).

Reliability

As with all assessments, the reliability of scores is a common concern. Broadly speaking, reliability, more correctly the lack of reliability, is an indication of the amount of error that accompanies measurement. Reliability also can be described as the extent to which the exam would produce consistent results if applicants repeatedly took it or similar tests (Guardians, 630 F.2d at 101). Internal consistency reliability for the cognitive and non-cognitive components of the exam, using the Cronbach Alpha technique, was calculated at .90 and .96, respectively. Cronbach Alpha estimates can range from zero to 1.00. Tests with internal consistency reliability estimates of .70 or higher are considered adequate; however, when making applied decisions, estimates of .80 or higher are recommended (Nunnally & Bernstein, 1994).

B. Validation Support

Evidence of a selection procedure's validity is a pre-condition for the transportability of that procedure to a new setting. Morris & McDaniel conducted an extensive criterion-related validation study of the exam's ability to predict future job performance. The criterion-related validity study examined the relationship between test scores and several performance indices. Detailed descriptions of the criterion-related validation results are discussed in a separate report (see the



National Entry Level Fire Examination Validity Report available from the City); however below, we summarize the main validity findings.

The original validation study is based on 4,976 applicants for the position of entry-level firefighter in a large municipal fire department located in the Midwestern United States from 2001 through 2011. The majority of those applicants were White (50%), with smaller numbers of African Americans (19%), and Hispanics (6%). Most were male (85%). As applicants flowed through the department's selection process and ultimately were hired, performance data were collected in the form of fire academy performance, post-hire performance ratings, and supplemental performance ratings targeting specific job-related areas. Of those applicants who were hired and from whom performance measures were obtained, the majority were again White (68%), with smaller numbers of African Americans (13%), and Hispanic (10%). Most were male (97%).

The relationship between test scores and job performance criteria (i.e., validity) is demonstrated through validity coefficients which are based on correlations. Correlations indicate the strength and direction of association between two sets of scores and range in value from 0 to 1 and can be either positive or negative. Assuming higher numbers represent positive results (e.g., higher supervisor ratings reflect superior job performance), then a positive validity coefficient is desired, the larger the better. To be meaningful, validity coefficients should be statistically significant, which indicates that the strength of the relationship is beyond the level expected by chance alone. In addition, the context of the test's use should be considered when evaluating the size of validity coefficients. While any significant validity coefficient above zero has the potential to improve selection decisions, those with values above .20 will be beneficial and values above .35 will likely be very beneficial (U.S. Department of Labor, 2000).

It also is important to examine the impact of measurement error on the validity coefficient. As noted in the Reliability section, some degree of measurement error



is present in most tests. To address this, corrections were made to the validity coefficients for the two most impactful sources of distortion in data, restriction in range and criterion reliability.

The impact of these distortions (i.e., statistical artifacts) can be estimated and the estimate can be removed from the validity coefficient. While not all measurement error can be estimated and eliminated this way, typically the two most impactful error sources can be estimated. One source is these effects are the restricted range in the test's scores because not all test takers are hired. Since not all tested applicants are hired, the validity coefficient typically only assesses the relationship between test score and job performance for those with the highest test scores. The correction estimates the validity coefficient across the range of test scores. The second artifact source that can decrease the validity coefficient is the reliability of the criterion measure. Various factors contribute error to the criterion scores, such as from having different supervisors generate ratings or varying levels of familiarity between employees' performance, among others. Correcting the validity coefficients better estimates the true relationship strength between test score and job performance.

Validity coefficients calculated between the Entry-level exam scores and the criterion measures (e.g., academy scores, job performance measures) were statistically significant, positive and exceeded the Department of Labor's recommended threshold for evidence of a beneficial test. That is, validity coefficients (uncorrected) exceeded .20. The average of the statistically significant validity coefficients was .39 (standard deviation = .03) for the cognitive component and was .30 (standard deviation = .12) for the non-cognitive component. The validity coefficient average included the academy and job performance measures.

Further, after the correcting for measurement error due to restriction in test score range and criterion reliability, the validity coefficients ranged from .47 to .52, far exceeding the Department of Labor's threshold, "very beneficial" ($r = .35$).



The original criterion-related validity evidence was supported further by the local validation study conducted on the 2013 Entry-level Firefighter selection process (see Austin CRV Report 3.1.2017, available from the City).

The 2013 local validation study was based on 2,010 applicants for the position of entry-level firefighter in Austin. The majority of those applicants were Hispanic (40%), with smaller numbers of Whites (36%), and African Americans (11%). Most were male (87%). As applicants flowed through the department's selection process and ultimately were hired, performance data were collected in the form of fire academy performance, post-hire performance ratings, and supplemental performance ratings targeting specific job-related areas. Of those applicants who were hired and from whom performance measures were obtained ($n = 64$), the majority were White (56%), with smaller numbers of Hispanics (14%), African Americans (6%), and Asians (6%). Most were male (83%).

For the 2013 study, statistically significant validity coefficients were .45 for the cognitive component with Fire Academy scores and .28 for the non-cognitive component with supervisor performance observation scores. When corrected for the criterion reliability artifact, the cognitive and non-cognitive validity coefficients were, .56 and .38, respectively. The validity coefficients also exceed the "very beneficial" level of .35 (U.S. Department of Labor, 2000).



C. Fairness Support

To determine the potential for bias based on non-job related factors, Morris & McDaniel performed moderated regression analyses. Moderated regression analyses (i.e., Cleary fairness analyses) determine the influence of multiple factors when predicting job performance scores. For fairness, we are interested in the relationship of the test with job performance, but also want to know if that relationship changes depending on race, sex, or ethnicity.

For group comparisons of interest (e.g., African Americans and Whites), regression analyses creates a test model where test score, followed by group comparison, and then the interaction of test score with group comparison are entered in a stepwise manner. The significance of each component in the model is examined. A significant result when test score is entered first is another way of showing the validity of the test. If the inclusion of either of the other two effects explains an incrementally significant amount of criterion variance, then bias may be indicated. However, any significant group comparison finding must be interpreted in light of the interaction results. If both the group comparison effect and the interaction effect are statistically significant, then evidence for bias for the paired groups is more difficult to refute.

Moderated regression analyses exploring potential bias were performed on the original validation sample. Similar analyses are planned for the 2013 local validation sample. For the original validation sample, when the regression results for the cognitive and non-cognitive component were examined, test scores predictions of future performance in the Fire Academy or on the job were fair for comparisons of Whites with African Americans and Hispanics. Results also indicated both components were fair when comparisons were made between females and males. We note that out of 30 moderated regression analyses conducted only two comparison group effects were significant (i.e., whites compared to Hispanics); however in both cases, the interaction terms were not



statistically significant. Those results indicated that the group differences reflected observed on-the-job performance differences and were not created by the use of the testing process. Therefore, we conclude the use of the cognitive and non-cognitive test components do not adversely impact race, sex or ethnic or groups.

While the results presented for validity and fairness demonstrate the individual value of Morris & McDaniel's selection assessment procedures (cognitive and non-cognitive) for identifying a qualified, diverse pool of candidates, we recommend using multiple indicators. We do not recommend making hiring decisions based on a single selection procedure, whether it is a scored application form, a written test, an oral test, or an interview. When used in combination, Morris & McDaniel's selection procedures yield results that demonstrate greater validity and less potential for adverse impact.



III. COMPARABILITY BETWEEN VALIDATION JOB AND TARGETED JOB

As stated earlier, once the validity and fairness of a test is established, the main criterion for transporting the validity of a test is that the major work behaviors of the job (Midwestern City) in the validation sample must be substantially the same as the major work behaviors in the targeted job (i.e., Austin Fire Department's Entry-Level Firefighter). This comparability can be demonstrated by linking information obtained from the validation study's job analysis to the results of the job analysis conducted on the Austin Fire Department's Entry-Level Firefighter position. This process was replicated in 2015 to ensure the essential components of the firefighter's position did not change

A. Comparison Process

The comparison of major work behaviors was performed with the involvement of subject matter experts (SMEs) from the Austin Fire Department who completed job analysis ratings prepared by Morris & McDaniel. SME ratings were obtained in March and April 2013, in July 2015 and January 2017.

Comparisons of major work behaviors were updated in January 2017. Below we present the combined results for the comparison processes conducted in 2013 and 2015. Since the 2017 results were not previously reported, we present the SME information below.

Tasks and skills, abilities, and other attributes (SAOs) that are important to the job were identified and rated by experienced subject matter experts (SMEs); and were confirmed and updated in the currency analysis. A total of eight (8) SMEs participated in the rating process.



Table 1. Summary of 2017 SME Biographical Data

| Sex | Race/ Ethnicity | Education | Current Rank | Total Length of Service in Department | Total Length of Service in Current Position |
|--------|---------------------|---|--------------------|--|--|
| Female | White | 4-year college degree (Bachelor's level) | Firefighter | More than 2 years, but less than 5 years | More than 2 years, but less than 5 years |
| Male | African American | 4-year college degree (Bachelor's level) | Firefighter | More than 6 months, but less than 2 years | More than 6 months, but less than 2 years |
| Male | Hispanic | 2-year college degree (Associate's level) | Battalion Chief | More than 10 years | More than 5 years, but less than 10 years |
| Male | Hispanic | 4-year college degree (Bachelor's level) | Lieutenant | More than 5 years, but less than 10 years | More than 6 months, but less than 2 years |
| Male | Hispanic | Some college courses | District Chief | More than 10 years | Less than 6 months |
| Male | White | 4-year college degree (Bachelor's level) | Battalion Chief | More than 10 years | More than 6 months, but less than 2 years |
| Male | White | 4-year college degree (Bachelor's level) | Firefighter | More than 5 years, but less than 10 years | More than 5 years, but less than 10 years |
| Male | White | 4-year college degree (Bachelor's level) | Battalion Chief | More than 10 years | More than 10 years |

SMEs rated 192 job task statements divided into 13 clusters on the frequency with which they are performed as well as their importance of performing them successfully. SMEs also rated 49 skills, abilities and other characteristics (SAOs) on their importance to the job, the extent to which performing them well differentiates an average from a superior firefighter, and when and how long it takes to acquire the SAOs. To be considered job related, at least two-thirds agreement on each task statement (duty cluster) rating and SAO rating was required.

The next two sections show the results from the Austin Fire Department SME ratings compared to the SME ratings conducted in the Midwestern department.



The comparability of the major duty clusters is depicted first (Table 2), followed by the SAO comparability (Table 3).

B. Comparison of Major Work Behaviors

In this section, we present results comparing the major work behaviors from the validation study with the major work behaviors from the job analysis Morris & McDaniel conducted for the Department's position. The information presented below is summarized from the results of job analyses. For a detailed comparison of the two positions, we attach the firefighter job analysis for the validation study sample upon which the test's validity study was conducted (Appendix A). The Currency Analysis and Job Analysis reports for the targeted position for the City of Austin is also included (Appendix C).

Of the 192 individual task statements describing the firefighter position in the Midwestern department, 97.4% (187 out of 192) of the job tasks were common job requirements in both departments. The 5 tasks not rated as comparable represented the routing and positioning of fire apparatus (Cluster XIII).



Table 2. Comparison between Jobs for Major Work Behavior / Duty Cluster

| Major Duty Cluster | | Important to Both Jobs | Re-Confirmed Important |
|--------------------|--|------------------------|------------------------|
| I. | Responding to alarms (receiving, processing, and transmitting alarms) | Yes | Yes |
| II. | Firefighting and extinguishing operations | Yes | Yes |
| III. | “Post-fire” operations, salvage and overhaul, inventory, return to station | Yes | Yes |
| IV. | Performing special emergency operations | Yes | Yes |
| V. | Accessing fire scenes, rescuing victims and providing first aid and assistance. | Yes | Yes |
| VI. | Respond to medical emergency calls | Yes | Yes |
| VII. | Fire prevention, inspection, code enforcing activities including false alarms. | Yes | Yes |
| VIII. | Inspecting, testing, cleaning and maintenance of apparatus and equipment | Yes | Yes |
| IX. | Fire/arson investigations. | Yes | Yes |
| X. | Training activities, preplanning and preparing for fires; conducting and participating in drills | Yes | Yes |
| XI. | General management, administration, house watch, and related firehouse duties | Yes | Yes |
| XII. | Public relations/community activities | Yes | Yes |
| XIII. | Routing to and positioning of apparatus at fireground | No | No Change |

C. Comparison of Essential Skills, Abilities, and Other Characteristics (SAOs)

In this section, we present the results comparing the essential Skills, Abilities, and Other Characteristics (SAOs) from the validation study with the SAOs from the job analysis Morris & McDaniel conducted for the Department's position. The information presented below is summarized from the results of job analyses. For ease of presentation, some SAOs were truncated.

Inspection of the information below shows that the essential SAOs from the validation study are supported by the job analysis data Morris & McDaniel staff collected from Department SMEs. The two jobs shared 98% (48 out of 49) SAOs in common, representing thirteen skills, eighteen abilities, and seventeen other characteristics (e.g., personal characteristics).



Table 3. Comparison between Jobs for Essential SAOs

| | Skills, Abilities, or Other Characteristics | Essential to Both Jobs | Re-Confirmed as Essential |
|---|---|-------------------------------|----------------------------------|
| | SKILLS | | |
| 1 | Active Learning: Understanding the implications of new information for both current and future problem-solving and decision-making. | Yes | Yes |
| 2 | Active Listening: Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times. | Yes | Yes |
| 3 | Decision Making (Complex Problem Solving): Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions. | Yes | Yes |
| 4 | Coordination: Adjusting actions in relation to others' actions. | Yes | Yes |
| 5 | Critical Thinking: Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems. | Yes | Yes |
| 6 | Judgment and Decision Making: Considering the relative costs and benefits of potential actions to choose the most appropriate one. | Yes | Yes |
| 7 | Service Orientation: Actively looking for ways to help people; Ability to recognize and respond to the needs of private citizens, firefighters, and others, and to provide help and assistance. | Yes | Yes |

| | Skills, Abilities, or Other Characteristics | Essential to Both Jobs | Re-Confirmed as Essential |
|----|---|-------------------------------|----------------------------------|
| 8 | Social Perceptiveness: Being aware of others' reactions and understanding why they react as they do. | Yes | Yes |
| 9 | Time Management: Managing one's own time and the time of others. | Yes | Yes |
| 10 | Troubleshooting: Determining causes of operating errors and deciding what to do about it. | Yes | Yes |
| 11 | Memory for Ideas: Recalling the essence of previously studied material (e.g., the main point or topic of a paragraph). Rote recall of this material (e.g., specific words or sentences) is not required. Responses may be either written or oral. | Yes | Yes |
| 12 | Mechanical Reasoning: Mechanical reasoning, also known as mechanical aptitude, is measured by the degree of familiarity with everyday physical objects, tools, and devices, especially their function, use, size, shape, weight, and appearance. | Yes | Yes |
| 13 | Observation/Vigilance: Ability to recognize information which is incomplete, false, inconsistent or illogical. | Yes | Yes |
| | ABILITIES | | |
| 1 | Oral (Verbal) Comprehension: Ability to listen to and understand information and ideas presented (in English) through spoken words and sentences. | Yes | Yes |

| | Skills, Abilities, or Other Characteristics | Essential to Both Jobs | Re-Confirmed as Essential |
|---|---|-------------------------------|----------------------------------|
| 2 | Oral Communication (Oral Expression & Speaking): Ability to communicate information and ideas in speaking (in English) so others will understand; talking to others to convey information effectively. | Yes | Yes |
| 3 | Reading Comprehension (Written Comprehension): Ability to read and understand information and ideas presented (in English) in work related documents and other written materials. | Yes | Yes |
| 4 | Deductive Reasoning: Ability to apply general rules to specific problems to produce answers that make sense. | Yes | Yes |
| 5 | Inductive Reasoning: Ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events). | Yes | Yes |
| 6 | Information Ordering: Ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations). | Yes | Yes |
| 7 | Problem Identification & Analysis (Problem Sensitivity): Ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem. | Yes | Yes |
| 8 | Memorization: Ability to remember information such as words, numbers, pictures, and procedures. | Yes | Yes |

| | Skills, Abilities, or Other Characteristics | Essential to Both Jobs | Re-Confirmed as Essential |
|----|---|-------------------------------|----------------------------------|
| 9 | Associative Memory: Recalling or reproducing items of information arbitrarily paired. Item groupings have no obvious relationship between them of a pair and no logical way of getting from item to the other except by memorization. | Yes | Yes |
| 10 | Flexibility of Closure (Observational Judgment): Ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material. | Yes | Yes |
| 11 | Perceptual Speed: Ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. | Yes | Yes |
| 12 | Speed of Closure: Ability to quickly make sense of, combine, and organize information into meaningful patterns. | Yes | Yes |
| 13 | Mathematical Reasoning: Ability to choose the right mathematical methods or formulas to solve a problem. | Yes | Yes |
| 14 | Number Facility: Ability to add, subtract, multiply, or divide quickly and correctly. | Yes | Yes |
| 15 | Selective Attention: Ability to concentrate on a task over a period of time without being distracted. | Yes | Yes |
| 16 | Spatial Orientation: Ability to know your location in relation to the environment or to know where other objects are in relation to you. | Yes | Yes |

| | Skills, Abilities, or Other Characteristics | Essential to Both Jobs | Re-Confirmed as Essential |
|----|---|-------------------------------|----------------------------------|
| 17 | Risk Assessment (Spatial Scanning): Necessitates rapid visual exploration of a wide or complicated spatial field in order to foresee consequences for each step taken. May be considered visual planning. | Yes | Yes |
| 18 | Visualization: Ability to imagine how something will look after it is moved around or when its parts are moved or rearranged. | Yes | Yes |
| | OTHER CHARACTERISTICS | | |
| 1 | Respect for Authority: Ability to accept supervision. | Yes | Yes |
| 2 | Compliance: Willingness to accept supervision, including criticism, without becoming argumentative or defensive. | Yes | Yes |
| 3 | Flexibility: Ability to adapt behavior to rapidly changing conditions, based on the nature of the situation encountered (think on one's feet). | Yes | Yes |
| 4 | Integrity: Acts in an honest, fair, and ethical manner, in both actions and words which causes a person to do the right thing, even if no one else will know; Avoids criminal acts, conflicts of interest, or the appearance of the same. | Yes | Yes |
| 5 | Request Assistance: Willingness to seek assistance from a co-worker or supervisor when one's own resources are exceeded. | Yes | Yes |
| 6 | Stress – Performance: Ability to remember and recall incidents upon questioning under stressful conditions (for example, when giving testimony). | Yes | Yes |



| | Skills, Abilities, or Other Characteristics | Essential to Both Jobs | Re-Confirmed as Essential |
|----|---|-------------------------------|----------------------------------|
| 7 | Stress Tolerance: Ability to maintain control of personal reactions and impulses while taking charge of or handling a disagreeable or dangerous situation. | Yes | Yes |
| 8 | Teamwork and Cooperation: Ability to work with firefighters, citizens, and agencies over whom you have or do not have control to work toward a common goal. | Yes | Yes |
| 9 | Tolerance – Unpredictability: Ability to accept unplanned changes to work schedules or priorities. | Yes | Yes |
| 10 | Work Ethic: Ability to be productive, diligent, conscientious, timely, and loyal; Ability to be self-disciplined and self-motivated | Yes | Yes |
| 11 | Rule Compliance: Ability and willingness to adhere to workplace rule, policies and procedures. | Yes | Yes |
| 12 | Work-related substance abuse & risk-taking: Ability to avoid influence of substances that impair one's ability to perform the job accurately, efficiently, or safely; Avoids high-risk behaviors. | Yes | Yes |
| 13 | Tolerance – Diversity: Ability to work cooperatively with others who are different from one's self (e.g., race, sex, ethnic group, sexual orientation, religious beliefs, disability). | Yes | Yes |
| 14 | Tenure: Ability to make and maintain a long-term employment commitment. | No | No |
| 15 | Discipline: Ability to avoid disciplinary or other censorship actions. | Yes | Yes |

| | Skills, Abilities, or Other Characteristics | Essential to Both Jobs | Re-Confirmed as Essential |
|----|---|-------------------------------|----------------------------------|
| 16 | Initiative: Ability to anticipate the need for action, offers or volunteers assistance before being asked. | Yes | Yes |
| 17 | Multi-Tasking: Ability to shift between multiple tasks rapidly; Ability to maintain attention on more than one task simultaneously. | Yes | Yes |
| 18 | Self-Confidence: Capacity to believe in one's ability to achieve a goal; Persists in goal-directed behavior in the face of initially failed attempts. | Yes | Yes |



IV. CONCLUSION

This transportability study demonstrates that the job of Entry-Level Firefighter for the City of Austin is appropriately comparable to the job of Entry-Level Firefighter that comprised the validation sample for the entry-level examination. As well, the local validation sample's results confirm that the entry-level examination continues to be appropriate for Austin's Entry-Level Firefighter position. Based on the criterion-related validity of the entry-level examination (original and local), we continue to conclude with confidence that the empirical evidence of the entry-level examination can be generalized (i.e., transported) to its present use for the Austin Fire Department's Entry-level Firefighter current (2017) position.



CITY OF AUSTIN FIRE DEPARTMENT

TRANSPORTABILITY STUDY FOR THE RANK OF ENTRY-LEVEL FIREFIGHTER



Submitted by:

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- Appendix A National Entry Level Fire Examination Validity Report
- Appendix B Austin Entry Level Firefighter Job Analysis Report



I. INTRODUCTION

Morris & McDaniel, Inc. is pleased to submit this transportability study for the position of Entry-Level Firefighter with the City of Austin Fire Department (Department). The purpose of this transportability study is to demonstrate that the existing validity of inferences from the Entry-level Firefighter Examination scores can be generalized to the Department for use as a selection procedure for their Entry-level Firefighter position. For a previously validated selection procedure to be used in a new situation, the comparability of the targeted job with the job examined in the originating validity study must be shown.

This report focuses on the comparability of the Department's targeted position with the job used in the original validation study. Before we present the job comparisons, we summarize the validity evidence for the Entry-level Firefighter examination.

II. PREVIOUS CRITERION-RELATED VALIDATION EVIDENCE

A. Overview of the Test

Morris & McDaniel, Inc. designed and developed the Entry-level Firefighter examination to measure job applicant's potential for future success if hired as an entry-level firefighter. The content of the examination is divided into two components: a component that taps into specific, distinct abilities and a behavioral component. The specific abilities component assesses abilities such as Memorization, Reading Comprehension, Mechanical Reasoning, Spatial Orientation, and Mathematical Computation. For the behavioral component, areas such fundamental values, work ethic and basic counter productive work behaviors are targeted. The examination assesses an individual's performance in these example areas. A copy of the full Validation and Job Analysis Report is included in Appendix A.

The examination format consists of objectively-scored, multiple-choice questions and scenarios. For each question or scenario, an applicant chooses which response is the most accurate or appropriate.

We examined the reliability of the Entry-level examination. Reliability refers to the consistency of the results obtained. Internal consistency for the exam, using the Cronbach Alpha techniques, was calculated at .85. As a rule of thumb on multiple choice tests abilities tests, when making important selection decisions, values should meet or exceed .80.

B. Criterion Measures

For job applicants who were hired by the jurisdiction, various job performance indices (i.e., criterion) were available for a subset of those individuals who took the examination as an applicant. The specific sample size varied depending on the specific criterion measure examined. Viewed in aggregate, of the 1,804 job applicants, criterion data were available for one hundred eleven (111) individuals. The aggregate criterion sample demographic information is described as primarily male (94.6%) and white (58.6%), with minority representation that includes African American (34%) and Hispanic (6%).

Next, we briefly describe the criterion measures used in the present analyses.

Cadet Fire Score

The Cadet Fire Score represents the individual's cumulative score on all fire fighting and fire ground skills demonstrated during the Fire Academy.

Post-Hire Performance

After completing the Fire Academy and following their station assignments, firefighters receive a Performance Rating. Typically, the Performance Rating within the first 6-month period. Direct supervisors complete the Performance Rating which covers ten dimensions, ranging from attendance to safety procedures to fire ground performance.

Experimental Performance Ratings

In 2011, staff from Morris & McDaniel trained agency supervisors on the use of an experimental performance appraisal rating instrument (EPARI) to The EPARI elicits ratings for 34 job-related skills and abilities that flow directly from job analysis data. It covers specific (e.g., safety guidelines, fire ground decisions, adherence to oral and written instruction). In addition, the EPARI includes two

measures of overall performance. The trained supervisors completed the EPARI on firefighters who completed the Fire Academy and had been employed for at least three months.

C. Criterion-Related Validity Coefficients

To determine the entry-level examination's ability to predict future performance post-hire, Pearson correlations were conducted between the entry-level examination's Total score and the criterion measures above described. These correlations represent the criterion-related validity coefficients for the entry-level examination.

In Table 1, we present the validity coefficients for the entry-level examination. The validity coefficient (r) indicates the strength of the relationship between the entry-level examination's Total Score and each criterion measure. Both uncorrected and corrected (for criterion reliability) coefficients are presented.

Table 1
Criterion-related Validity Coefficients

| Criterion Measure | r (corrected) | r (uncorrected) | p | N |
|---------------------------------|--------------------|----------------------|------|-----|
| Cadet Fire Score | .382 | .275 | .006 | 100 |
| Post-Hire Performance Rating | .449 | .323 | .050 | 38 |
| Experimental Performance Rating | .632 | .455 | .017 | 27 |

Note: Corrected validity coefficients were adjusted for criterion reliability (.72).

Inspection of the above information reveals that each of the validity coefficients is statistically significant. The correlation between the entry-level examination's and these criterion measures indicate the test has a strong ability to identify future firefighter job performance.

III. COMPARABILITY BETWEEN VALIDATION JOB AND TARGETED JOB

As stated earlier, to be able to transport the validity of a test, the major work behaviors of the job in the validation sample must be substantially the same as the major work behaviors in the targeted job (i.e., Austin Fire Department's entry-level firefighter). This comparability can be demonstrated by linking information obtained from the validation study's job analysis and the job analysis conducted on the Department's entry-level firefighter position.



A. Comparison of Major Work Behaviors

In this section, we present results comparing the major work behaviors from the validation study with the major work behavior from the job analysis Morris & McDaniel conducted for the Department's position. The information presented below is summarized from the results of job analyses. For a detailed comparison of the two positions we attach firefighter job analysis for the validation study sample upon which the test's validity study was conducted (Appendix A). The full Job Analysis report for the targeted position for the City of Austin is also included (Appendix B).

Table 2
Comparison between Jobs for
Major Work Behavior / Duty Cluster

| Major Duty Cluster | | Important to Both Jobs |
|--------------------|--|------------------------|
| I. | Responding to alarms (receiving, processing, and transmitting alarms) | Yes |
| II. | Firefighting and extinguishing operations | Yes |
| III. | "Post-fire" operations, salvage and overhaul, inventory, return to station | Yes |
| IV. | Performing special emergency operations | Yes |
| V. | Accessing fire scenes, rescuing victims and providing first aid and assistance. | Yes |
| VI. | Respond to medical emergency calls | Yes |
| VII. | Fire prevention, inspection, code enforcing activities including false alarms. | Yes |
| VIII. | Inspecting, testing, cleaning and maintenance of apparatus and equipment | Yes |
| IX. | Fire/arson investigations. | Yes |
| X. | Training activities, preplanning and preparing for fires; conducting and participating in drills | Yes |
| XI. | General management, administration, house watch, and related firehouse duties | Yes |
| XII. | Public relations/community activities | Yes |
| XIII. | Routing to and positioning of apparatus at fireground | No |

B. Comparison of Essential Skills, Abilities, and Other Characteristics (SAOs)

In this section, we present the results comparing the essential Skills, Abilities, and Other Characteristics (SAOs) from the validation study with the SAOs from the job analysis Morris & McDaniel conducted for the Department's position. The information presented below is summarized from the results of job analyses. For ease of presentation, some SAOs were truncated. Also, for the sake of clarity, the City of Austin utilizes an equivalent categorization of applicant characteristics, but with slightly different terminology. The equivalent terms used by the City are Skills, Abilities, and Personal Characteristics (SAPs).

Inspection of the below information shows that the essential SAOs from the validation study are supported by the job analysis data Morris & McDaniel staff collected from Department subject matter experts. The two jobs shared ten skills, thirteen abilities, and twenty-three other characteristics (e.g., personal characteristics).



Table 3
Comparison between Jobs for
Essential Skills, Abilities, and Other Characteristics

| | Skill, Ability, or Other Characteristics | Essential to Both Jobs |
|----|---|------------------------|
| | SKILLS | |
| 1 | Active Learning: Understanding the implications of new information for both current and future problem-solving and decision-making. | Yes |
| 2 | Active Listening: Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times. | Yes |
| 3 | Decision Making (Complex Problem Solving): Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions. | Yes |
| 4 | Coordination: Adjusting actions in relation to others' actions. | Yes |
| 5 | Critical Thinking: Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems. | Yes |
| 6 | Judgment and Decision Making: Considering the relative costs and benefits of potential actions to choose the most appropriate one. | Yes |
| 7 | Service Orientation: Actively looking for ways to help people; Ability to recognize and respond to the needs of private citizens and others, and to provide help and assistance. | Yes |
| 8 | Social Perceptiveness: Being aware of others' reactions and understanding why they react as they do. | Yes |
| 9 | Time Management: Managing one's own time and the time of others. | Yes |
| 10 | Troubleshooting: Determining causes of operating errors and deciding what to do about it. | Yes |
| | ABILITIES | |
| 1 | Oral Comprehension: Ability to listen to and understand information and ideas presented (in English) through spoken words and sentences. | Yes |

| | Skill, Ability, or Other Characteristics | Essential to Both Jobs |
|----|---|-------------------------------|
| 2 | Oral Communication (Oral Expression & Speaking): Ability to communicate information and ideas in speaking (in English) so others will understand; talking to others to convey information effectively. | Yes |
| 3 | Reading Comprehension (Written Comprehension): Ability to read and understand information and ideas presented (in English) in work related documents and other written materials. | Yes |
| 4 | Deductive Reasoning: Ability to apply general rules to specific problems to produce answers that make sense. | Yes |
| 5 | Inductive Reasoning: Ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events). | Yes |
| 6 | Information Ordering: Ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations). | Yes |
| 7 | Problem Identification & Analysis (Problem Sensitivity): Ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem. | Yes |
| 8 | Memorization: Ability to remember information such as words, numbers, pictures, and procedures. | Yes |
| 9 | Flexibility of Closure (Observational Judgment): Ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material. | Yes |
| 10 | Perceptual Speed: Ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. | Yes |
| 11 | Speed of Closure: Ability to quickly make sense of, combine, and organize information into meaningful patterns. | Yes |
| 12 | Mathematical Reasoning: Ability to choose the right mathematical methods or formulas to solve a problem. | Yes |
| 13 | Number Facility: Ability to add, subtract, multiply, or divide quickly and correctly. | Yes |
| 14 | Selective Attention: Ability to concentrate on a task over a period of time without being distracted. | Yes |

| | Skill, Ability, or Other Characteristics | Essential to Both Jobs |
|----|---|-------------------------------|
| 15 | Spatial Orientation: Ability to know your location in relation to the environment or to know where other objects are in relation to you. | Yes |
| 16 | Visualization: Ability to imagine how something will look after it is moved around or when its parts are moved or rearranged. | Yes |
| | OTHER CHARACTERISTICS | |
| 1 | Associative Memory: Recalling or reproducing items of information arbitrarily paired. Item groupings have no obvious relationship between them of a pair and no logical way of getting from item to the other except by memorization. | Yes |
| 2 | Respect for Authority: Ability to accept supervision. | Yes |
| 3 | Compliance: Willingness to accept supervision, including criticism, without becoming argumentative or defensive. | Yes |
| 4 | Flexibility: Ability to adapt behavior to rapidly changing conditions, based on the nature of the situation encountered (think on one's feet). | Yes |
| 5 | Integrity: Acts in an honest, fair, and ethical manner, in both actions and words which causes a person to do the right thing, even if no one else will know; Avoids criminal acts, conflicts of interest, or the appearance of the same. | Yes |
| 6 | Mechanical Reasoning: Mechanical reasoning, also known as mechanical aptitude, is measured by the degree of familiarity with everyday physical objects, tools, and devices, especially their function, use, size, shape, weight, and appearance. | Yes |
| 7 | Memory for Ideas: Recalling the essence of previously studied material (e.g., the main point or topic of a paragraph). Rote recall of this material (e.g., specific words or sentences) is not required. Responses may be either written or oral. | Yes |
| 8 | Observation/Vigilance: Ability to recognize information which is incomplete, false, inconsistent or illogical. | Yes |
| 9 | Request Assistance: Willingness to seek assistance from a co-worker or supervisor when one's own resources are exceeded. | Yes |

| | Skill, Ability, or Other Characteristics | Essential to Both Jobs |
|----|---|-------------------------------|
| 10 | Risk Assessment (Spatial Scanning): Necessitates rapid visual exploration of a wide or complicated spatial field in order to foresee consequences for each step taken. May be considered visual planning. | Yes |
| 11 | Stress – Performance: Ability to remember and recall incidents upon questioning under stressful conditions (for example, when giving testimony). | Yes |
| 12 | Stress Tolerance: Ability to maintain control of personal reactions and impulses while taking charge of or handling a disagreeable or dangerous situation. | Yes |
| 13 | Teamwork and Cooperation: Ability to work with people and agencies over whom you have or do not have control to work toward a common goal. | Yes |
| 14 | Tolerance – Unpredictability: Ability to accept unplanned changes to work schedules or priorities. | Yes |
| 15 | Work Ethic: Ability to be productive, diligent, conscientious, timely, and loyal; Ability to be self-disciplined and self-motivated | Yes |
| 16 | Rule Compliance: Ability and willingness to adhere to workplace rule, policies and procedures. | Yes |
| 17 | Work-related substance abuse & risk-taking: Ability to avoid influence of substances that impair one's ability to perform the job accurately, efficiently, or safely; Avoids high-risk behaviors. | Yes |
| 18 | Tolerance – Diversity: Ability to work cooperatively with others who are different from one's self (e.g., gender, race/ethnicity, sexual orientation, religious beliefs, disability). | Yes |
| 19 | Tenure: Ability to make and maintain a long-term employment commitment. | Yes |
| 20 | Discipline: Ability to avoid disciplinary or other censorship actions. | Yes |
| 21 | Initiative: Ability to anticipate the need for action, offers or volunteers assistance before being asked. | Yes |
| 22 | Multi-Tasking: Ability to shift between multiple tasks rapidly; Ability to maintain attention on more than one task simultaneously. | Yes |

| | Skill, Ability, or Other Characteristics | Essential to Both Jobs |
|----|---|-------------------------------|
| 23 | Self-Confidence: Capacity to believe in one's ability to achieve a goal; Persists in goal-directed behavior in the face of initially failed attempts. | Yes |



IV. CONCLUSION

This transportability study demonstrates that job of entry-level firefighter for the City of Austin is appropriately comparable to the job of entry-level firefighter that comprised the validation sample for the entry-level examination. As the criterion-related validity of the entry-level examination was established previously, we conclude with confidence that the empirical evidence of the entry-level examination can be generalized (i.e., transported) to its present use for the Austin Fire Department's entry-level firefighter position.



CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY CERTIFICATION OF FILING

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

MORRIS & MCDANIEL, INC.
Alexandria, VA United States

Certificate Number:
2020-687499

Date Filed:
11/09/2020

Date Acknowledged:

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

City of Austin

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

MA 8300 NA210000014
Austin Fire Department Cadet Hiring Process

| 4 | Name of Interested Party | City, State, Country (place of business) | Nature of interest (check applicable) | |
|---|--------------------------|--|--|--------------|
| | | | Controlling | Intermediary |
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5 Check only if there is NO Interested Party.



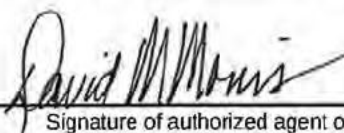
6 UNSWORN DECLARATION

My name is DAVID M. MORRIS and my date of birth is 01-14-1945

My address is 117 S. ST. ASAPH ST., ALEXANDRIA, VA, 22314, USA
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in FAIRFAX County, State of VA, on the 9 day of Nov, 20 20.
(month) (year)



Signature of authorized agent of contracting business entity
(Declarant)

GOAL DETERMINATION REQUEST FORM

| | | | |
|---|-----------------------|--------------------------------|--|
| Buyer Name/Phone | Erin D'Vincent 4-3070 | PM Name/Phone | Karen Bitzer 4-4131 |
| Sponsor/User Dept. | AFD | Sponsor Name/Phone | |
| Solicitation No | RFP 8300 EAD3012 | Project Name | Austin Fire Department Cadet Hiring Process |
| Contract Amount | \$2,000,000 | Ad Date (if applicable) | 5/4/2020 |
| Procurement Type | | | |
| <input type="checkbox"/> AD – CSP <input type="checkbox"/> AD – Design Build Op Maint <input type="checkbox"/> IFB – IDIQ <input checked="" type="checkbox"/> Nonprofessional Services <input type="checkbox"/> Critical Business Need <input type="checkbox"/> Sole Source* | | | |
| <input type="checkbox"/> AD – CM@R <input type="checkbox"/> AD – JOC <input type="checkbox"/> PS – Project Specific <input type="checkbox"/> Commodities/Goods <input type="checkbox"/> Interlocal Agreement | | | |
| <input type="checkbox"/> AD – Design Build <input type="checkbox"/> IFB – Construction <input type="checkbox"/> PS – Rotation List <input type="checkbox"/> Cooperative Agreement <input type="checkbox"/> Ratification | | | |
| Provide Project Description** | | | |
| Austin Fire Department Cadet Hiring Process | | | |
| Project History: Was a solicitation previously issued; if so were goals established? Were subcontractors/subconsultants utilized? Include prior Solicitation No. | | | |
| RFP 8300 EAD0117 had no goals and no subcontracting | | | |
| List the scopes of work (commodity codes) for this project. (Attach commodity breakdown by percentage; eCAPRIS printout acceptable) | | | |
| 91885 - 100% | | | |
| Erin D'Vincent | | 4/21/2020 | |
| Buyer Confirmation | | Date | |

* Sole Source must include Certificate of Exemption

**Project Description not required for Sole Source

| | | | |
|--|-------------------------|--|-----------|
| FOR SMBR USE ONLY | | | |
| Date Received | 4/22/2020 | Date Assigned to BDC | 4/22/2020 |
| In accordance with Chapter 2-9(A-D)-19 of the Austin City Code, SMBR makes the following determination: | | | |
| <input type="checkbox"/> Goals | % MBE | % WBE | |
| <input type="checkbox"/> Subgoals | % African American | % Hispanic | |
| | % Asian/Native American | % WBE | |
| <input type="checkbox"/> Exempt from MBE/WBE Procurement Program | | <input checked="" type="checkbox"/> No Goals | |

GOAL DETERMINATION REQUEST FORM

This determination is based upon the following:

- | | |
|--|---|
| <input type="checkbox"/> Insufficient availability of M/WBEs | <input type="checkbox"/> No availability of M/WBEs |
| <input type="checkbox"/> Insufficient subcontracting opportunities | <input checked="" type="checkbox"/> No subcontracting opportunities |
| <input type="checkbox"/> Sufficient availability of M/WBEs | <input type="checkbox"/> Sufficient subcontracting opportunities |
| <input type="checkbox"/> Sole Source | <input type="checkbox"/> Other |

If Other was selected, provide reasoning:

MBE/WBE/DBE Availability

MBE: 13 WBE: 5

Subcontracting Opportunities Identified

There are no subcontracting opportunities

Veronica Hawkins

4/22/20

SMBR Staff

Signature/ Date

SMBR Director or Designee

Date

Returned to/ Date: